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STUDY OF SOIL BEHAVIOR UNDER HIGH
PRESSURE. REPORT 1. VOLUME 2. RESPONSE
OF TWO RECOMPACTED SOILS TO VARIOUS
STATES OF STRESS

Billy B. Mazanti, et al

Georgia Institute of Technology

Prepared for:

Defense Atomic Support Agency
Army Engineer Waterways Experiment Station

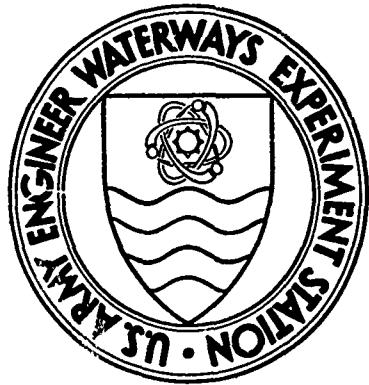
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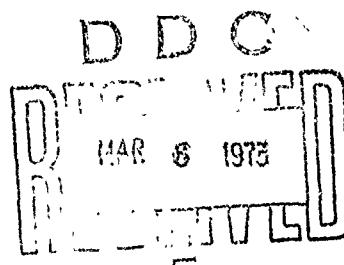
STUDY OF SOIL BEHAVIOR UNDER HIGH PRESSURE

Report I, Volume II

RESPONSE OF TWO RECOMPACTED SOILS TO VARIOUS STATES OF STRESS

by

B. B. Mazanti, C. N. Holland



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Sponsored by Defense Atomic Support Agency

Conducted for U. S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

Under Contract No. DACA 39-67-C-0051

By Georgia Institute of Technology, Atlanta, Georgia

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FOREWORD

This report presents the results of a research project conducted by the Georgia Institute of Technology, Atlanta, Georgia, under the direction of Dr. B. B. Mazanti, Associate Professor of Civil Engineering. Mr. C. N. Holland served as Associate Director of the project.

There are three separate volumes documenting this project. Volume I describes the development of equipment and test procedures, soil analysis and specimen preparation, and analysis of results. Volume II contains the basic results of all tests conducted for this program in the form of stress-strain plots. Volume III contains the numerical tabulation of test data in the form of computer sheet printout. Only a limited number of copies of the Volumes II and III were published; however, interested readers may borrow a copy on 30-day loan from the Research Center Library, Waterways Experiment Station.

The Georgia Institute of Technology has been engaged in research concerned with the effects of high pressure on soil and rock for approximately ten years. During this time period, a considerable amount of equipment and instrumentation has been developed for high pressure testing, financed almost entirely by Georgia Tech. Much of the equipment and instrumentation utilized in the performance of this research was of such origin.

This report was requested and authorized by Mr. J. G. Jackson, Jr., Impulse Loads Section, Soil Dynamics Branch, under the direction of Messrs. W. J. Turnbull and A. A. Maxwell, Chief and Assistant Chief, respectively, Waterways Experiment Station Soils Division. The work was part of Contract No. DACA 39-67-C-0051, Project B-602, and was conducted for the U. S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, under Defense Atomic Support Agency sponsorship, during the period November 1967 through November 1968.

Directors of the Waterways Experiment Station during the performance of this work and preparation and publication of this report were COL John R. Oswalt, Jr., CE, and COL Levi A. Brown, CE. Technical Directors were Messrs. J. B. Tiffany and F. R. Brown.

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LIST OF SYMBOLS

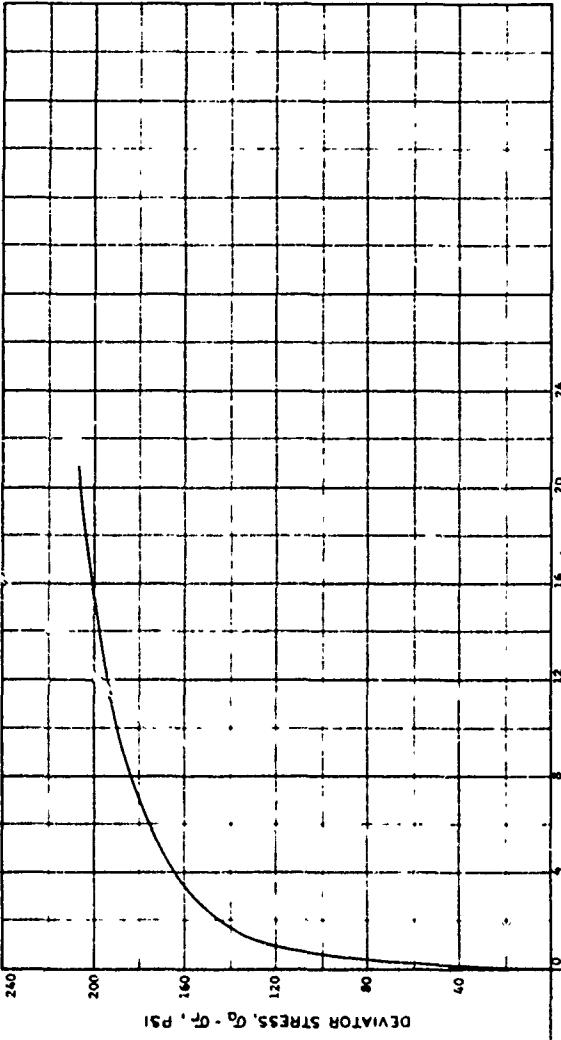
| | |
|----------------|--------------------------------|
| p | Hydrostatic Pressure |
| c | Normal Stress |
| σ_1 | Major Principal Stress |
| σ_2 | Intermediate Principal Stress |
| σ_3 | Minor Principal Stress |
| σ_a | Axial Stress |
| σ_r | Radial Stress |
| τ | Shear Stress |
| ϵ | Strain |
| ϵ_a | Axial Strain |
| ϵ_r | Radial Strain |
| ΔV | Volume Change |
| V_o | Original Volume |
| $\Delta V/V_o$ | Volumetric Strain |
| K^o | Condition of No-Lateral-Strain |

SECTION I
McCORMICK RANCH SAND STRESS-STRAIN PLOTS

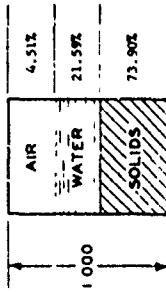
Group A

Triaxial Tests

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.94 | % |
| VOID RATIO | e _o | 0.35 | |
| SATURATION | s _o | 82.72 | % |
| DRY DENSITY | γ_d | 123.13 | pcf |
| WET DENSITY | γ | 136.60 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D _o | 3.50 | cm |
| SPECIMEN HEIGHT | H _o | 7.54 | cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

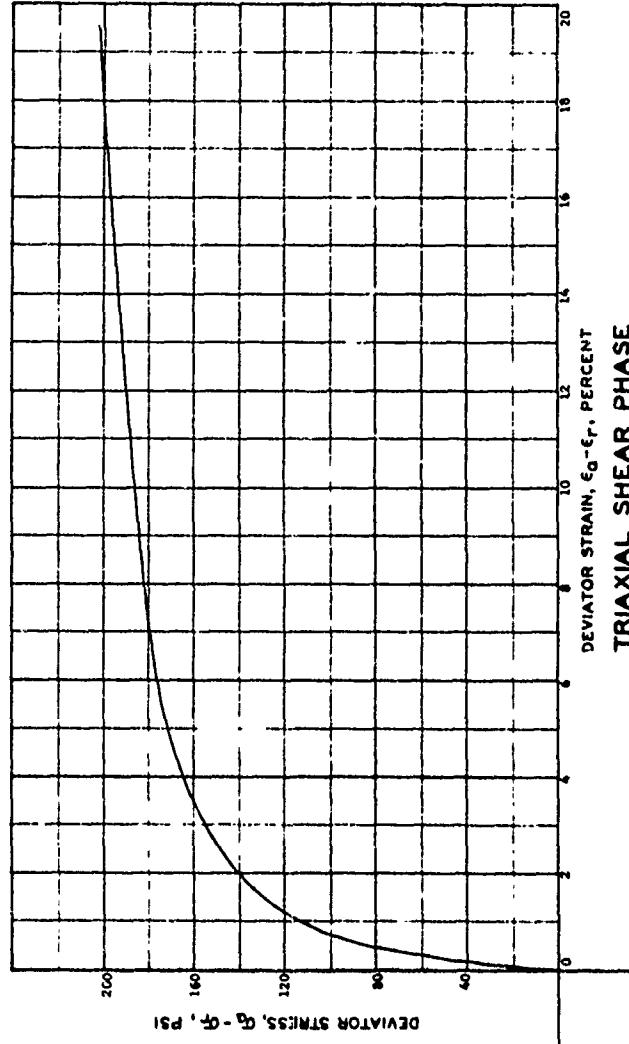
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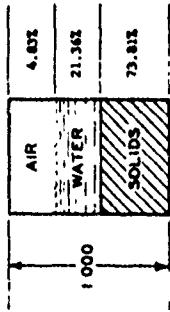
| | |
|------------------------------------|------------------|
| PROJECT | Ga Tech B-6021 |
| Contract No. | DACAA9-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 68 |
| DEPTH | DATE |
| EL. | |
| LL | PL 15 PI 12 |
| DESCRIPTION H-Comatich Bench, Sand | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.84 | % |
| VOID RATIO | e ₀ | 0.35 | |
| SATURATION | S _s | 81.56 | % |
| DRY DENSITY | γ_d | 122.97 | pcf |
| WET DENSITY | γ | 136.30 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.52 | cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

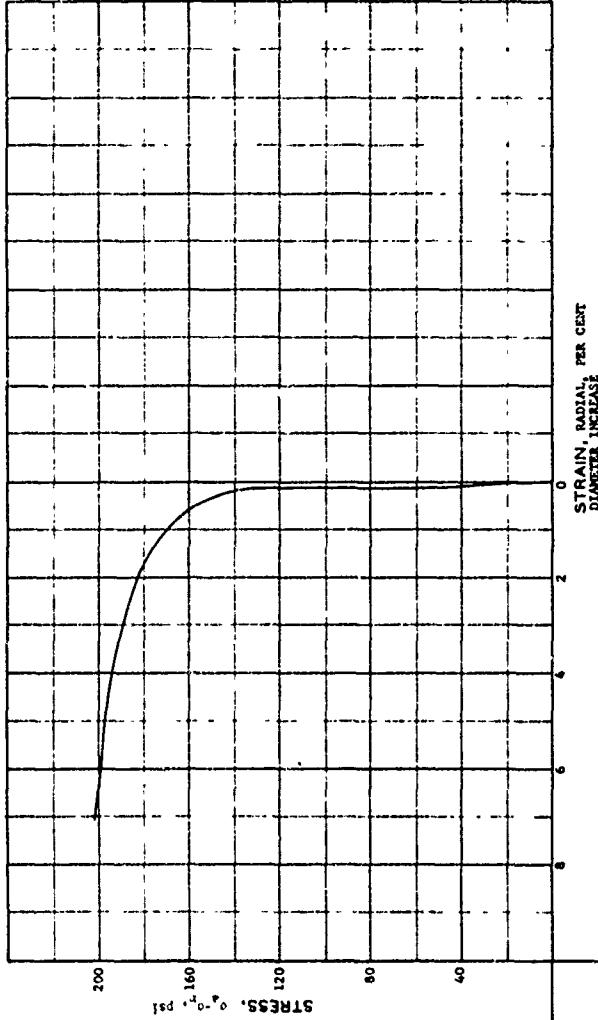
6

TRIAXIAL SHEAR PHASE

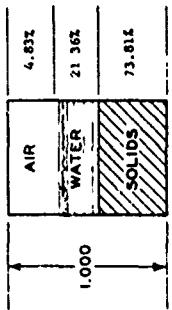
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|----------------------------------|------------------|----|----|
| PROJECT | 94.20th & 5621 | | |
| Contract No. | DACA19-67-C-0051 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | 91 | |
| DEPTH | DATE | | |
| EL. | | | |
| LL | PL | 15 | P1 |
| | | | 12 |
| DESCRIPTION McCormick Ranch Sand | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 10.84 % |
| VOID RATIO | e _o | 0.35 |
| SATURATION | S _o | 61.56 % |
| DRY DENSITY | γ_d | 122.97pcf |
| WET DENSITY | γ' | 136.30pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D _o | 3.50 cm |
| SPECIMEN HEIGHT | H _o | 7.52 cm |



HYDROSTATIC COMPRESSION PHASE

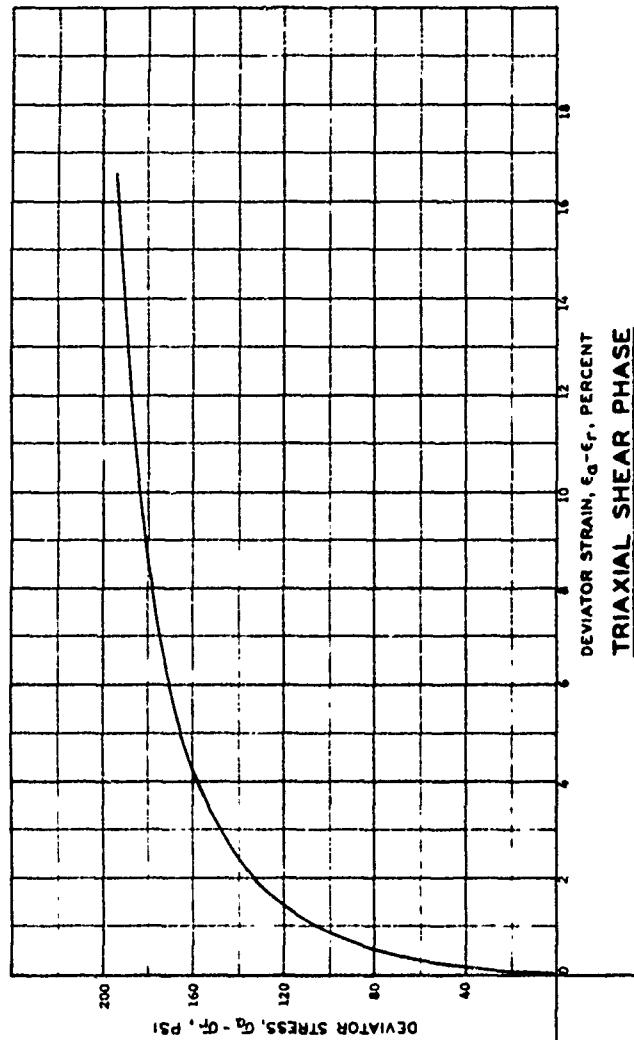


HYDROSTATIC PRESSURE, P, PSI

7

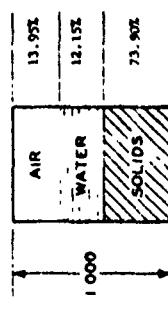
| | |
|---------------------------------|-----------------|
| PROJECT | Ca. Tech B-602; |
| Contract No. DA-CA 39-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 91 |
| DEPTH | DATE |
| EL. | P1 15 P1 12 |
| LL. | |
| DESCRIPTION McCrack Ranch Sand | |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT



DEVIATOR STRAIN, $\epsilon_d - \epsilon_r$, PERCENT
TRIAXIAL SHEAR PHASE

HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

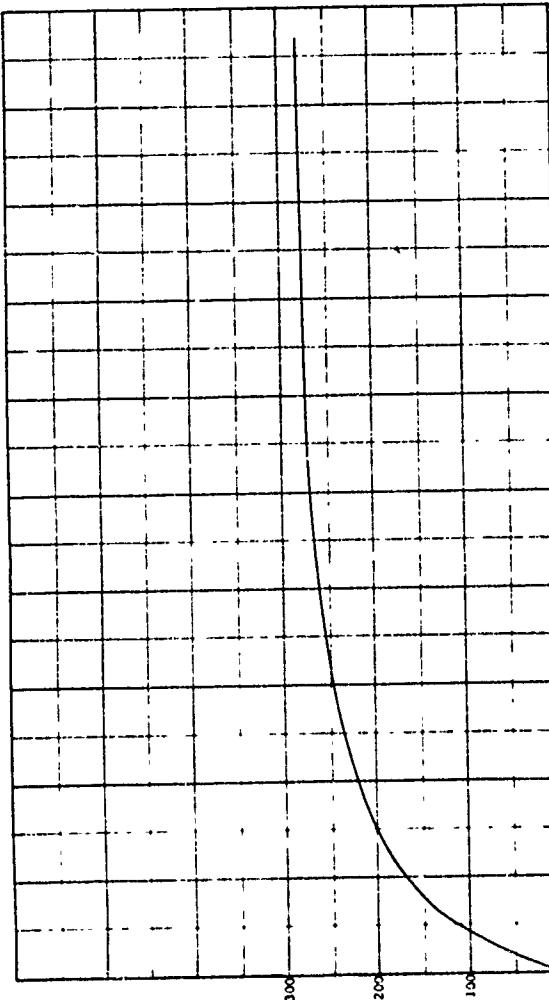
8

| | |
|--------------|---------------------|
| PROJECT | Geotech B-001 |
| Contract No. | DAC39-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 97 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 P1 12 |
| DESCRIPTION | McComick Ranch Sand |

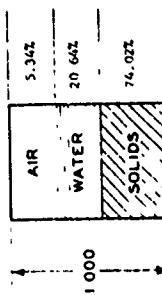
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.44 | % |
| VOID RATIO | e_0 | 0.35 | |
| SATURATION | S_o | 79.44 | % |
| DRY DENSITY | γ_d | 123.33 | pcf |
| WET DENSITY | γ | 136.21 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.51 | cm |
| SPECIMEN HEIGHT | H_o | 7.53 | cm |

DEVIATOR STRESS, G_d - G_f , PSI



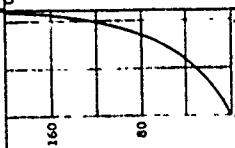
HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

9

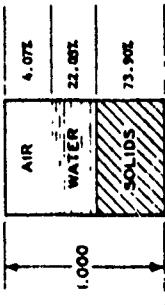
TRIAXIAL SHEAR PHASE



VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | |
|-----------|----------------------------------|
| PROJECT | Ga Tech 8-602 |
| AREA | Contract No. DAAG33-67-C-0051 |
| BORING NO | SAMPLE NO. 75 |
| DEPTH | DATE |
| EL. | PL 15 PI 12 |
| LL | DESCRIPTION McCormick Ranch Sand |

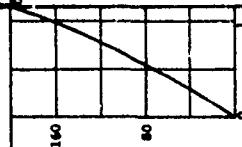
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.16 | % |
| VOID RATIO | e_0 | 0.3532 | |
| SATURATION | S_o | 84.41 | % |
| DRY DENSITY | γ_d | 123.12 | pcf |
| WET DENSITY | γ | 136.87 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.55 | cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

10

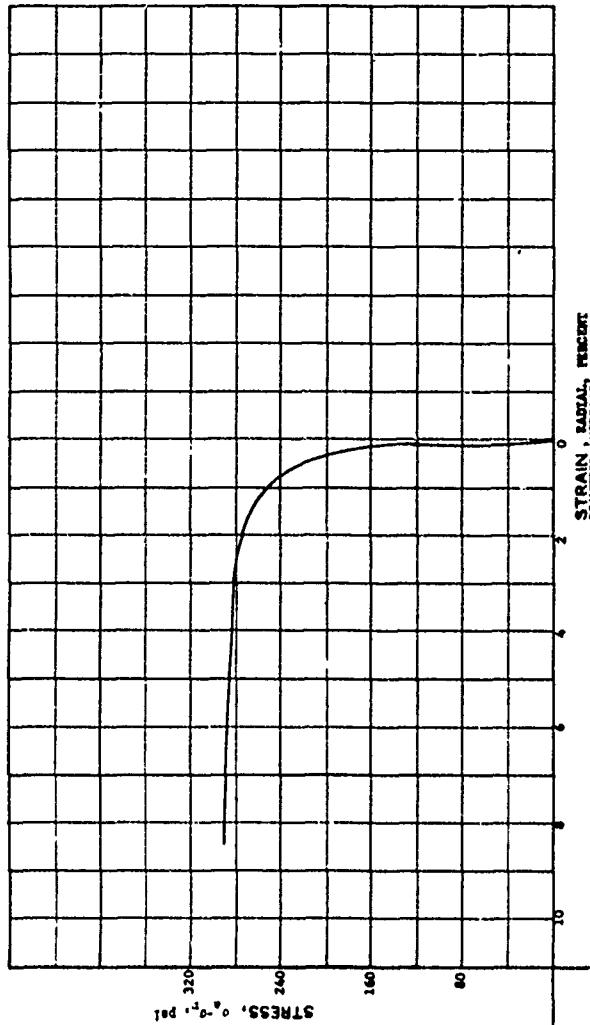


DEVIATOR STRAIN, $\epsilon_a - \epsilon_r$, PERCENT
TRIAXIAL SHEAR PHASE

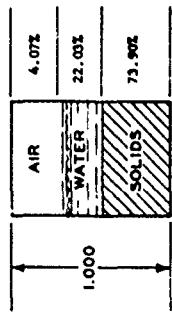
| | |
|----------------------------------|----------------|
| PROJECT | Ge Tech 3-602; |
| Contract No. DA-349-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 77 |
| DEPTH | DATE |
| ft. | |
| LL | PL IS PI L2 |
| DESCRIPTION McCormick Ranch Sand | |

VOLUME STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 11.16 % |
| VOID RATIO | e ₀ | 0.3532 |
| SATURATION | S ₀ | 84.41 % |
| DRY DENSITY | γ _d | 123.12 PCF |
| WET DENSITY | γ | 136.87 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 1.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.55 CM |



HYDROSTATIC COMPRESSION PHASE



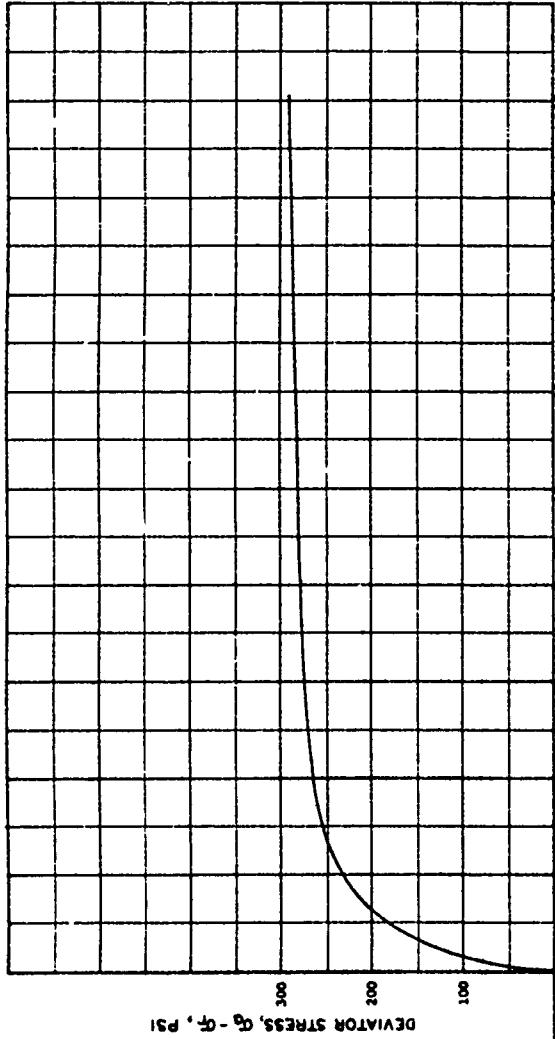
HYDROSTATIC PRESSURE, P, PSI

11

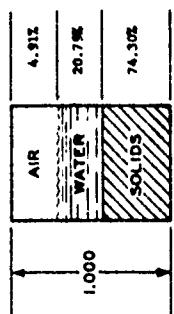
| | | | |
|-------------|---|-----|----|
| PROJECT | Ge Tech 8-602; Contract No. DAMA39-67-C-0051 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 77 | | |
| DEPTH | DATE | | |
| EL | | | |
| LL | 27 | PL | 15 |
| | | P1: | 12 |
| DESCRIPTION | McGonick Ranch Sand | | |
| | | | |
| | | | |
| | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.48 | % |
| VOID RATIO | e_0 | 0.35 | |
| SATURATION | S_0 | 80.91 | % |
| DRY DENSITY | γ_d | 123.50 | pcf |
| WET DENSITY | γ | 136.77 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.52 | cm |
| SPECIMEN HEIGHT | H_o | 7.52 | cm |



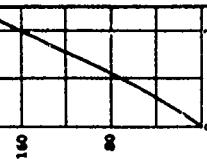
HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P , PSI

12

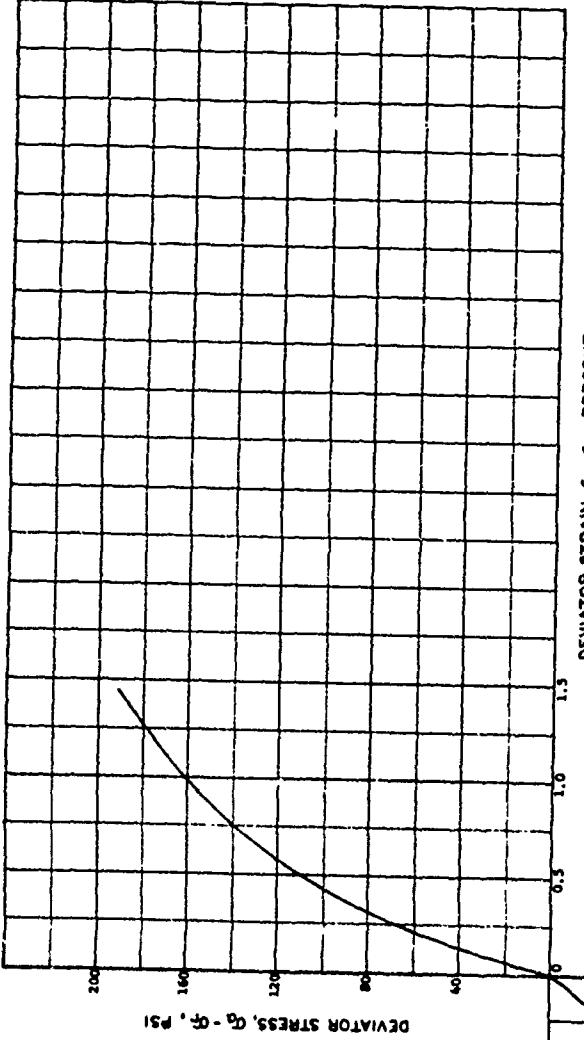
TRIAXIAL SHEAR PHASE



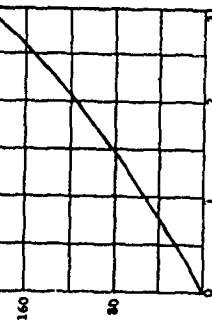
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|--------------------------------|-----------------|
| PROJECT | Ge-Tech 3-602; |
| Contract No. | DCU39-02-G-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 42 |
| DEPTH EL | DATE |
| LL 27 | PL 15 |
| | P1 12 |
| DESCRIPTION Mecomet Beach Sand | |
| | |
| | |
| | |
| | |
| | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 8.26 | % |
| VOID RATIO | e ₀ | 0.31 | |
| SATURATION | S ₀ | 69.88 | % |
| DRY DENSITY | γ_d | 126.72 | pcf |
| WET DENSITY | γ | 137.17 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.53 | cm |

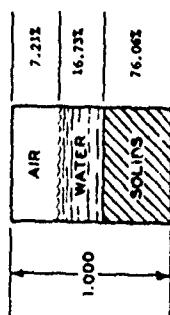
DEVIATOR STRESS, $\sigma_d - \sigma_r$, PSI



TRIAXIAL SHEAR PHASE



HYDROSTATIC COMPRESSION PHASE



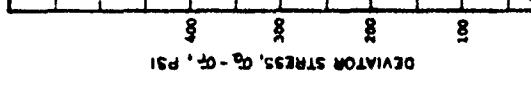
HYDROSTATIC PRESSURE, P, PSI

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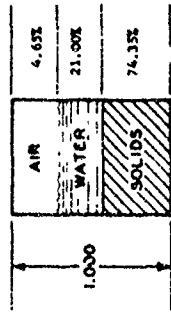
| | |
|-------------------------------|------------------|
| PROJECT | Co. Tech 2-002; |
| Contract No. | DACAS9-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 66 |
| DEPTH | DATE |
| EL. | |
| LL | P.L. 15 P1 12 |
| DESCRIPTION Heceta Beach Sand | |

VOLUME STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.5% |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | S _w | 61.8% |
| DRY DENSITY | γ_d | 123.87 PCF |
| WET DENSITY | γ_w | 136.98 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D _g | 3.50 CM |
| SPECIMEN HEIGHT | H _g | 7.55 CM |

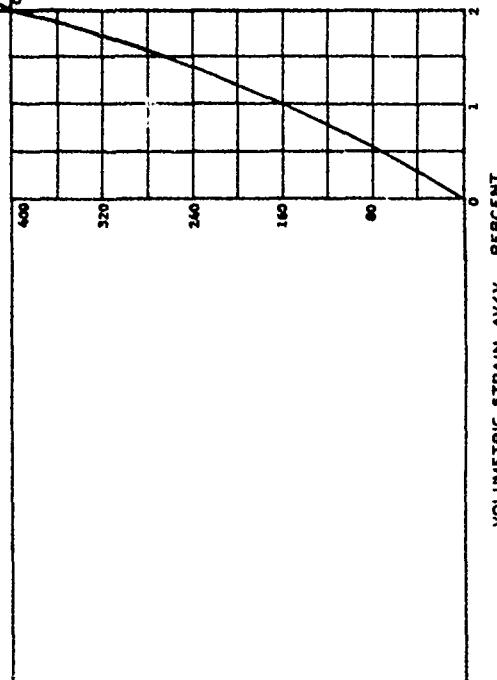


HYDROSTATIC COMPRESSION PHASE



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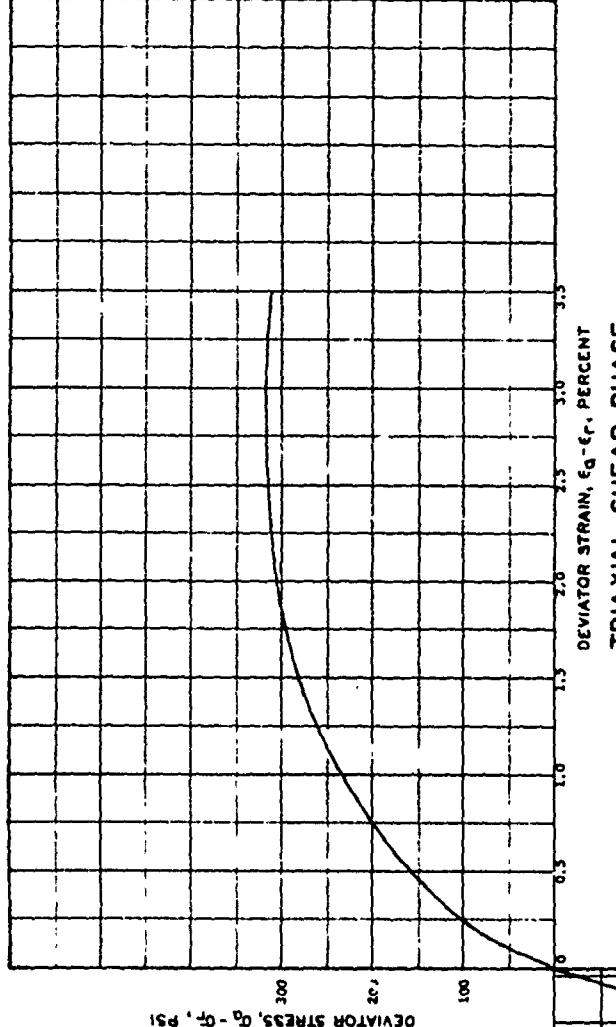
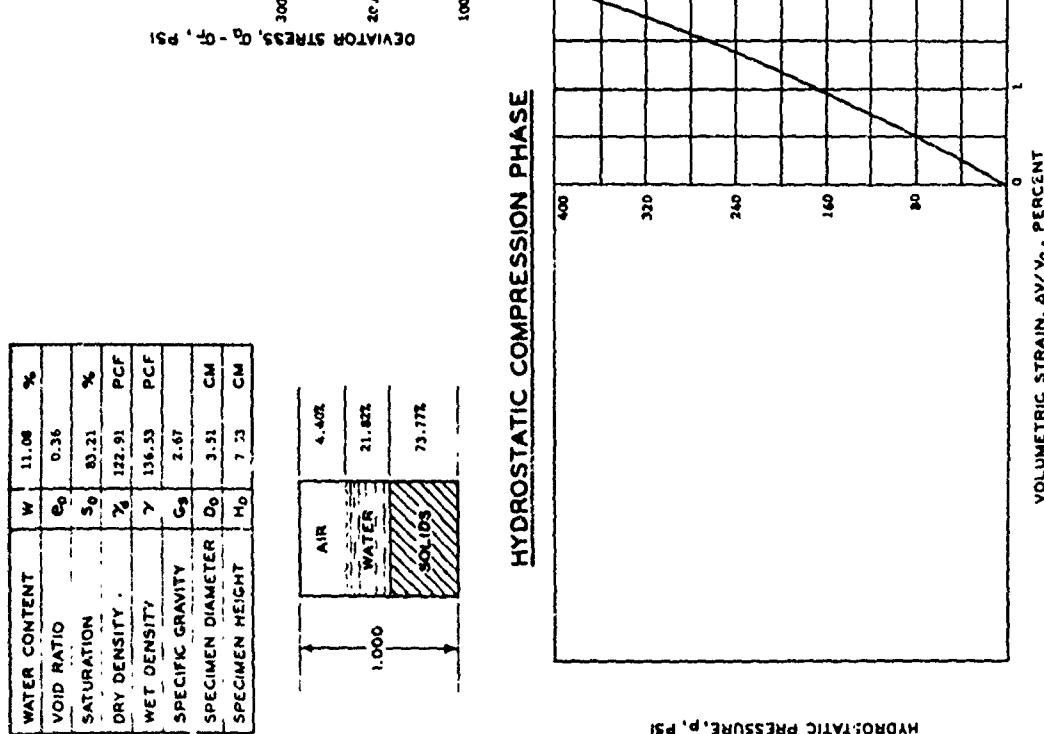
HYDROSTATIC PRESSURE, p, psi



VOLUMETRIC STRAIN, $\Delta V / V_0$, PERCENT

| | |
|----------------------------------|----------------|
| PROJECT | Ge Tech 8-402; |
| Contract No. DMAAS9-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 85 |
| DEPTH EL. | DATE |
| L.L. 27 | PL. 15 |
| | P1 12 |
| DESCRIPTION McClellan Beach Sand | |

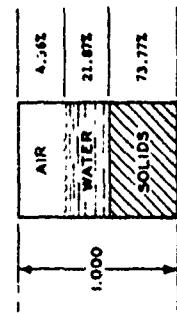
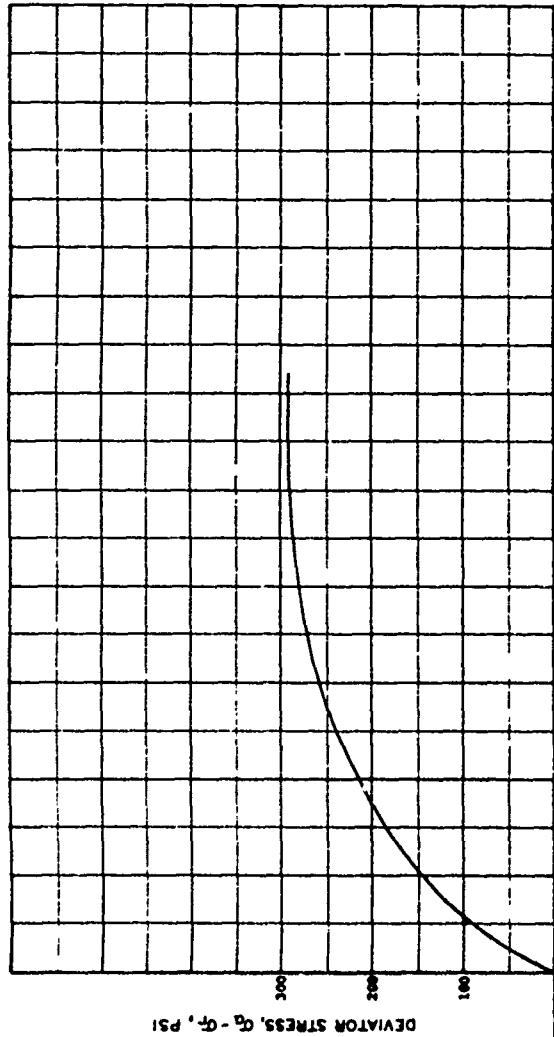
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.08 | % |
| VOID RATIO | e ₀ | 0.36 | |
| SATURATION | S _o | 83.21 | % |
| DRY DENSITY | γ_d | 122.91 | pcf |
| WET DENSITY | γ | 136.53 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.51 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.23 | cm |



| | |
|----------------------------------|------------------|
| PROJECT | Ca Tech 3-602: |
| CONTRACT NO. | DIAC19-67-0-0051 |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL | |
| LL | |
| PL | |
| P1 | |
| L2 | |
| SAMPLE NO. 47 | |
| DATE | |
| DESCRIPTION McCormick Ranch Sand | |

HYDROSTATIC PRESSURE, p , psi

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.10 | % |
| VOID RATIO | e ₀ | 0.36 | |
| SATURATION | S _o | 83.38 | % |
| DRY DENSITY | γ_d | 122.91 | pcf |
| WET DENSITY | γ | 136.55 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D _o | 3.51 | cm |
| SPECIMEN HEIGHT | H _o | 7.53 | cm |

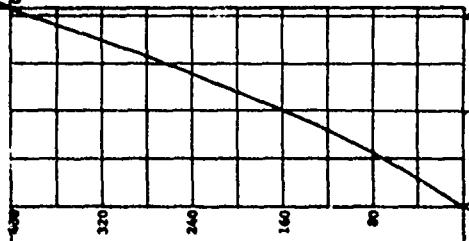


HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

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DEVIATOR STRAIN, $\epsilon_d - \epsilon_f$, PERCENT
TRIAXIAL SHEAR PHASE

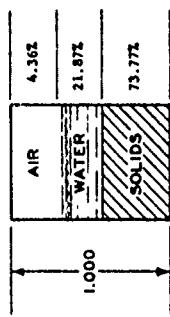


PROJECT Da Tech 3-602
Contract No. DAAG19-67-C-0031

| AREA | BORING NO. | SAMPLE NO. <u>59</u> | DEPTH EL. | DATE | | |
|------|------------|----------------------|--------------|------|----|----|
| | | | | LL | PL | IS |
| | | | | | | |

DESCRIPTION Inorganic, loamy sand

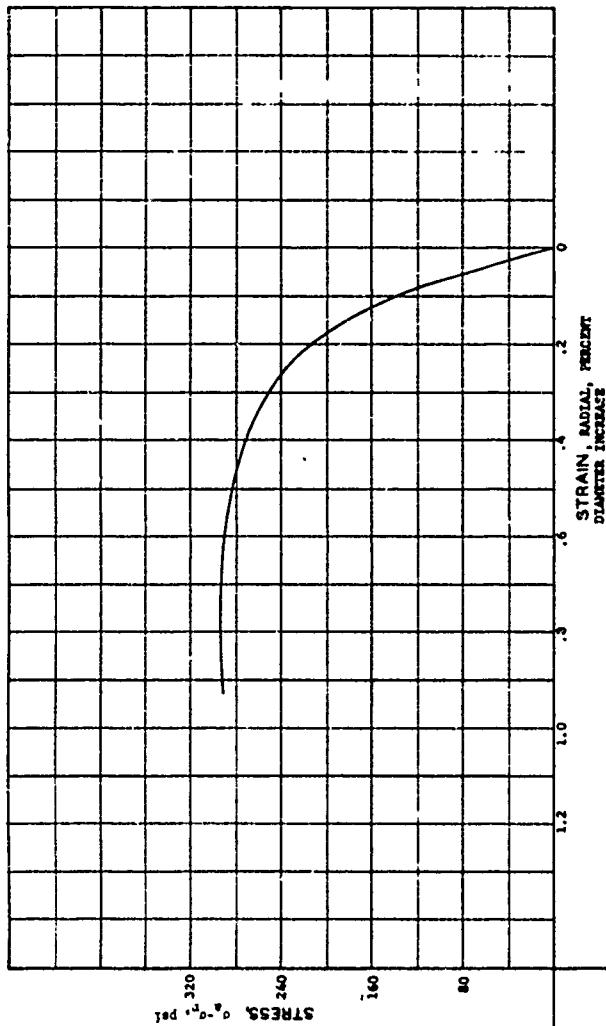
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.10 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_o | 83.38 | % |
| DRY DENSITY | γ_d | 122.91 | pcf |
| WET DENSITY | γ' | 136.55 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.51 | cm |
| SPECIMEN HEIGHT | H_0 | 7.53 | cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P , PSI

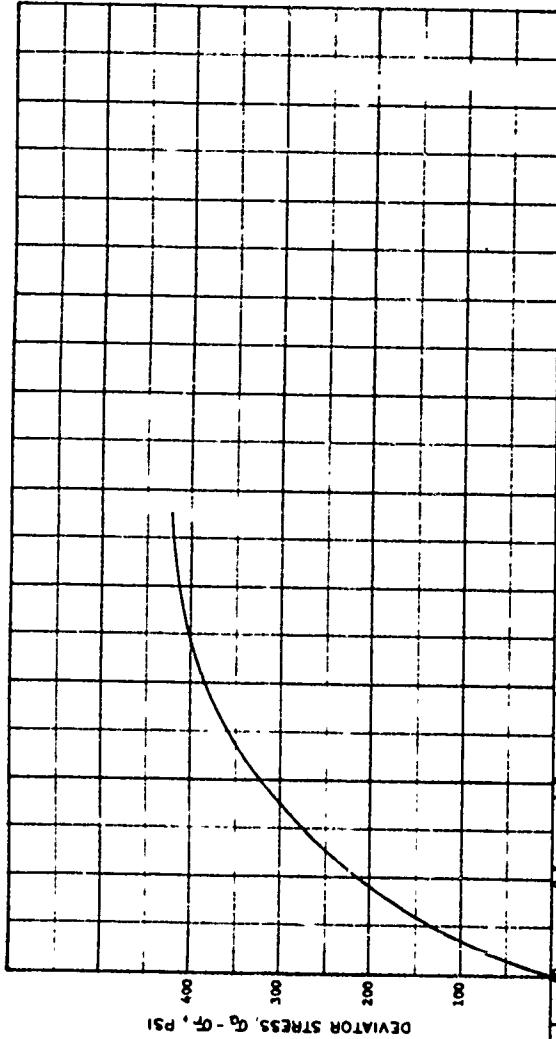
17



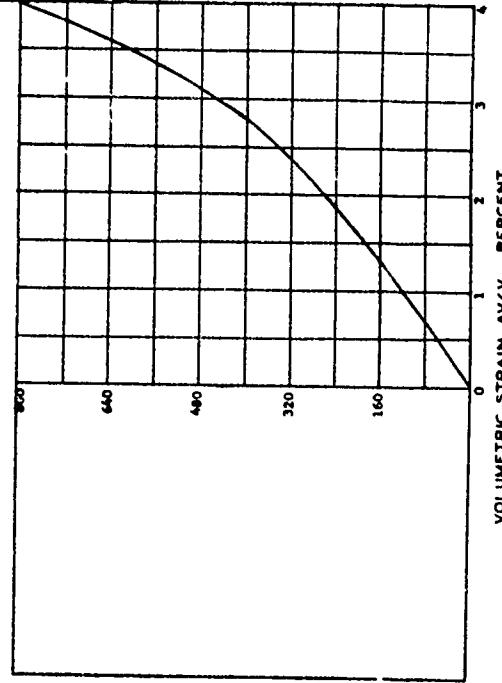
| | |
|-------------------------------------|------------------|
| PROJECT | Ge. Tech B-6021. |
| Contract No. DAMC93-67-C-0031 | |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. 89 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 P_1 12 |
| DESCRIPTION MacCoy Creek Ranch Sand | |
| | |
| | |
| | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.30 | % |
| VOID RATIO | e ₀ | 0.41 | |
| SATURATION | s ₀ | 66.70 | % |
| DRY DENSITY | γ_d | 117.98 | pcf |
| WET DENSITY | γ | 130.13 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.52 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.80 | cm |



HYDROSTATIC COMPRESSION PHASE

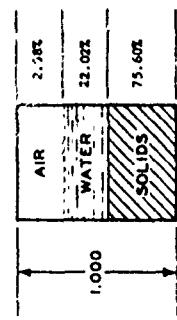


HYDROSTATIC PRESSURE, P, psi

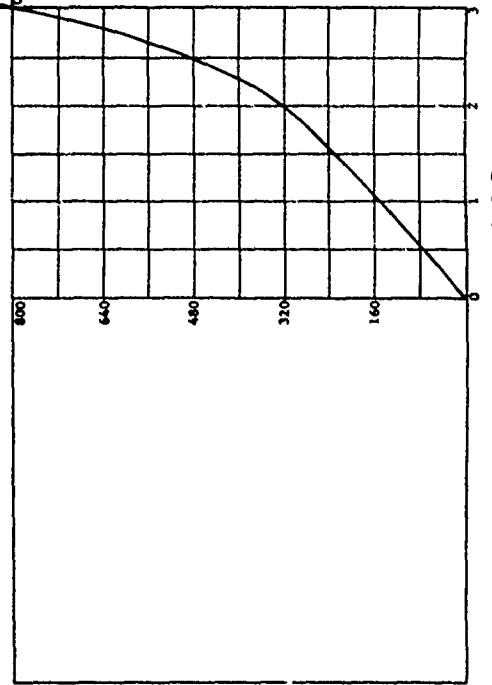
18

| | |
|----------------------------------|-----------------|
| PROJECT | C- Tech B-692, |
| Contract No. | DAC39-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 15 |
| DEPTH EL. | DATE |
| L.L. 27 | PL 15 |
| | P1 12 |
| DESCRIPTION McCordick Ranch Sand | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.91 | % |
| VOID RATIO | e ₀ | 0.32 | |
| SATURATION | S ₀ | 90.75 | % |
| DRY DENSITY | γ_d | 125.95 | pcf |
| WET DENSITY | γ | 131.69 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.46 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.55 | cm |

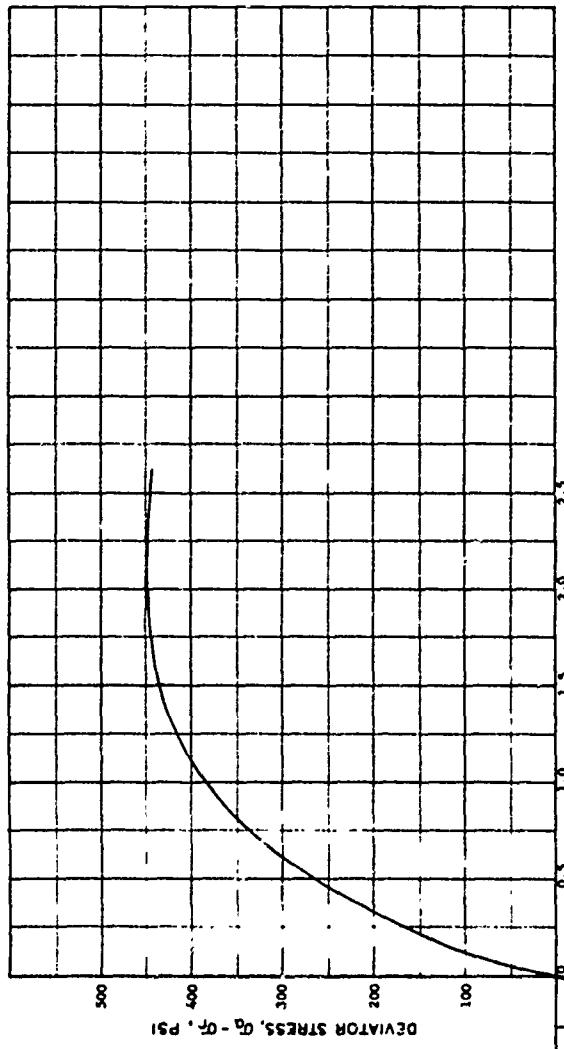


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

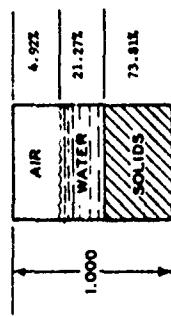
19



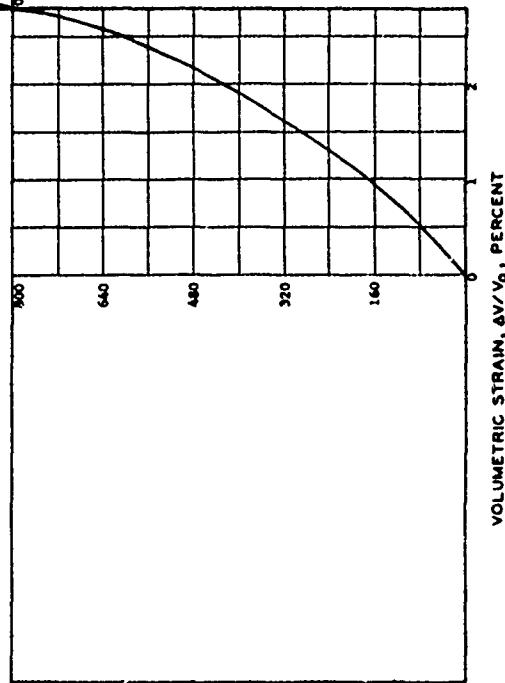
TRIAXIAL SHEAR PHASE

| | |
|---------------------------------|------------------|
| PROJECT | Co. Tech. B-602; |
| Contract No. DMA39-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 49 |
| DEPTH EL. | DATE |
| LL | PL 15 P1 12 |
| DESCRIPTION McCamish Ranch Sand | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.79 | % |
| VOID RATIO | e ₀ | 0.35 | |
| SATURATION | S _o | 81.22 | % |
| DRY DENSITY | γ_d | 112.97 | pcf |
| WET DENSITY | γ' | 136.24 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| ORIGINAL HEIGHT | H ₀ | 7.56 | cm |

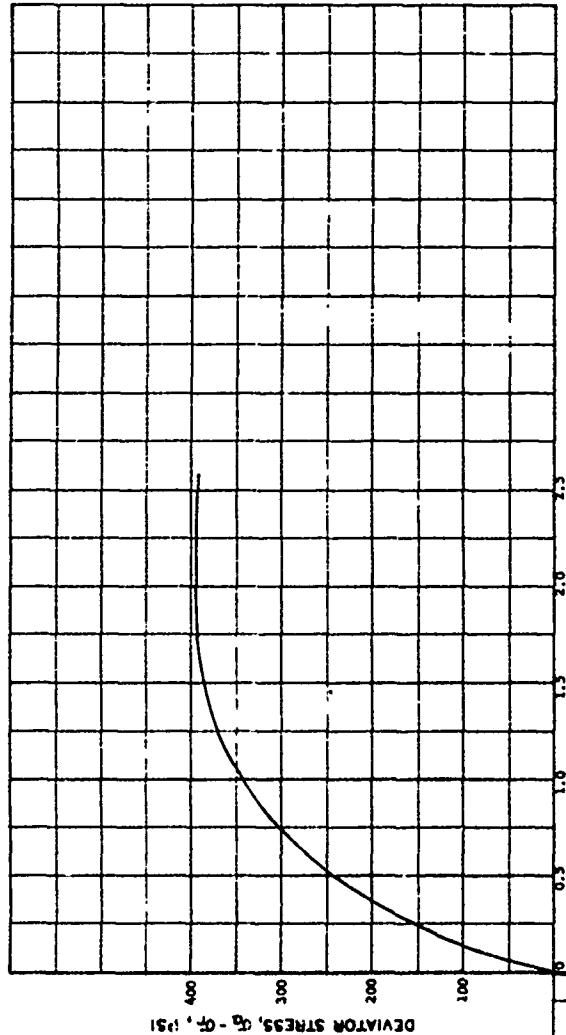


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

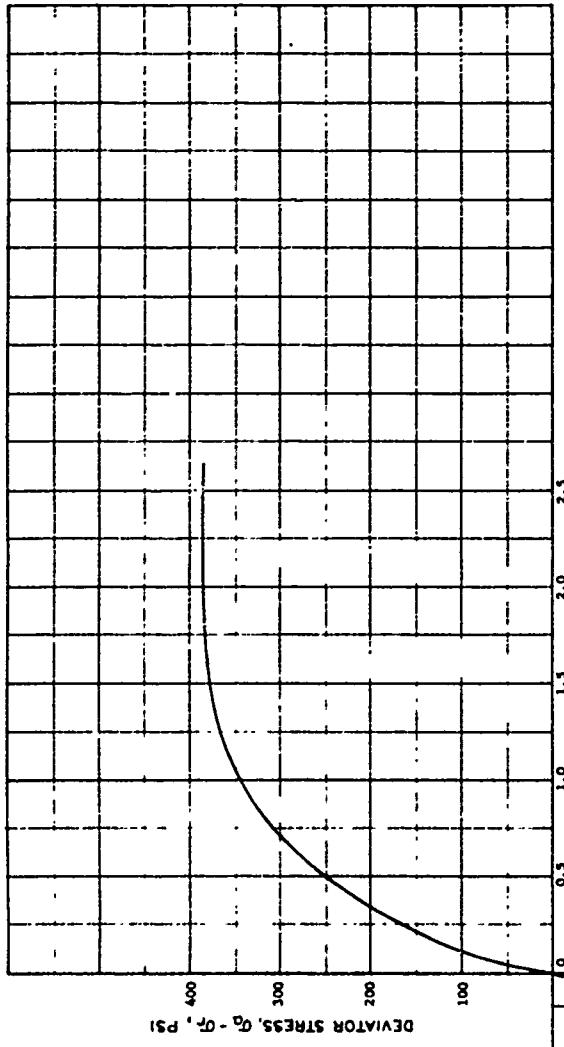
20



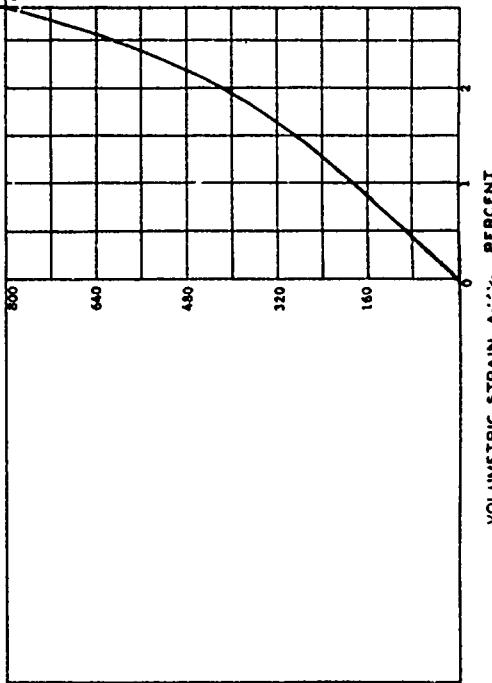
DEVIATOR STRESS, $\sigma_d - \sigma_f$, PSI
TRIAXIAL SHEAR PHASE

| | |
|----------------------------------|----------------|
| PROJECT | Ge Tech B-602: |
| Contract No. DA-CA-9-67-4-0051 | |
| AREA | SAMPLE NO. 70 |
| BORING NO. | DATE |
| DEPTH EL. | |
| L.L. | PL. 15 P1 12 |
| DESCRIPTION McCordick Ranch Sand | |

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.79 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_0 | 42.28 % |
| DRY DENSITY | γ_d | 123.39 PCF |
| WET DENSITY | γ | 136.71 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 CM |
| SPECIMEN HEIGHT | H_o | 7.54 CM |



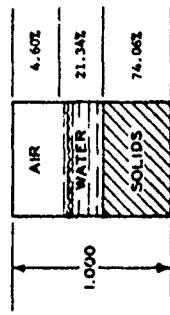
HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

| | |
|---------------------------------|-------------------------------|
| PROJECT | Geotech B-602 |
| | Contract No. DUCAS9-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 71 |
| DEPTH | DATE |
| EL. | |
| LL | PL 15 P1 12 |
| DESCRIPTION Mcdonell Ranch Sand | |

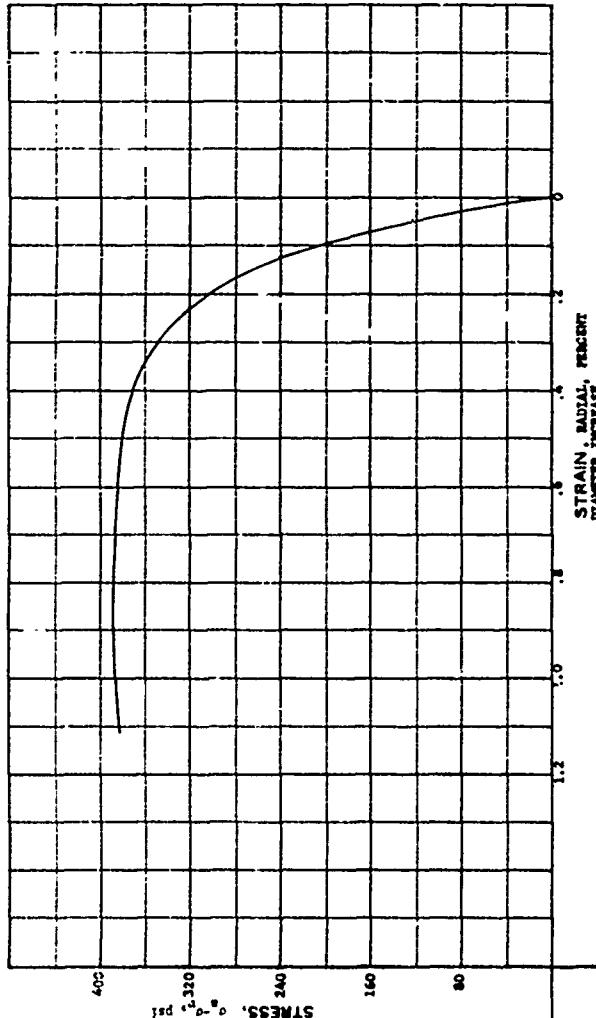
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.19 | % |
| VOID RATIO | e_0 | 0.35 | |
| SATURATION | S_0 | 82.28 | % |
| DRY DENSITY | γ_d | 123.39 | PCF |
| WET DENSITY | γ | 136.71 | PCF |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.50 | CM |
| SPECIMEN HEIGHT | H_0 | 7.54 | CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P , PSI

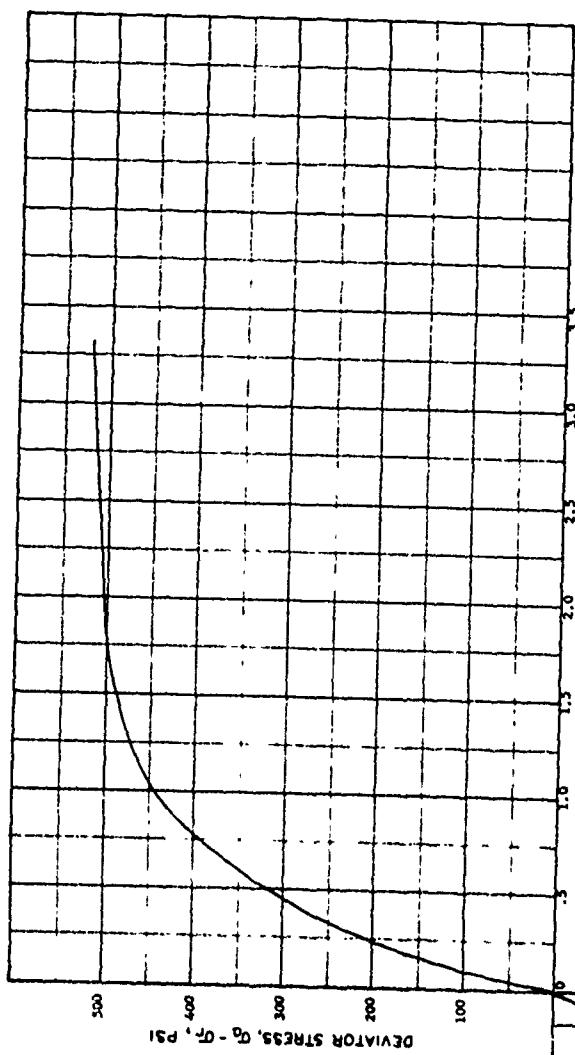
22



| | | |
|----------------------------------|--------------------------------|-------|
| PROJECT | Ge Tech 8-602; | |
| | Contract No. DMRCA39-67-C-0031 | |
| AREA | | |
| BORING NO. | SAMPLE NO. 71 | |
| DEPTH | DATE | |
| EL. | | |
| LL | PL | P_1 |
| | 15 | 12 |
| DESCRIPTION McCormick Ranch Sand | | |

VOLUMETRIC STRAIN, AV/V_0 , PERCENT

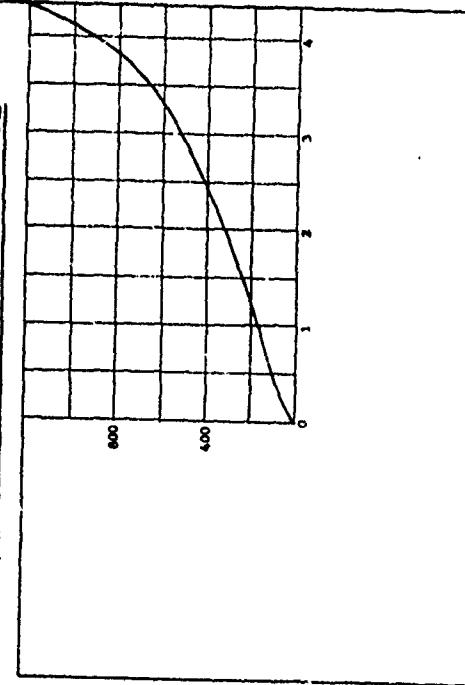
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.44 | % |
| VOID RATIO | e ₀ | 0.39 | |
| SATURATION | S _o | 70.78 | % |
| DRY DENSITY | γ _d | 119.53 | pcf |
| WET DENSITY | γ _w | 132.01 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D _o | 3.50 | cm |
| SPECIMEN HEIGHT | H _o | 7.79 | cm |



TRIAXIAL SHEAR PHASE

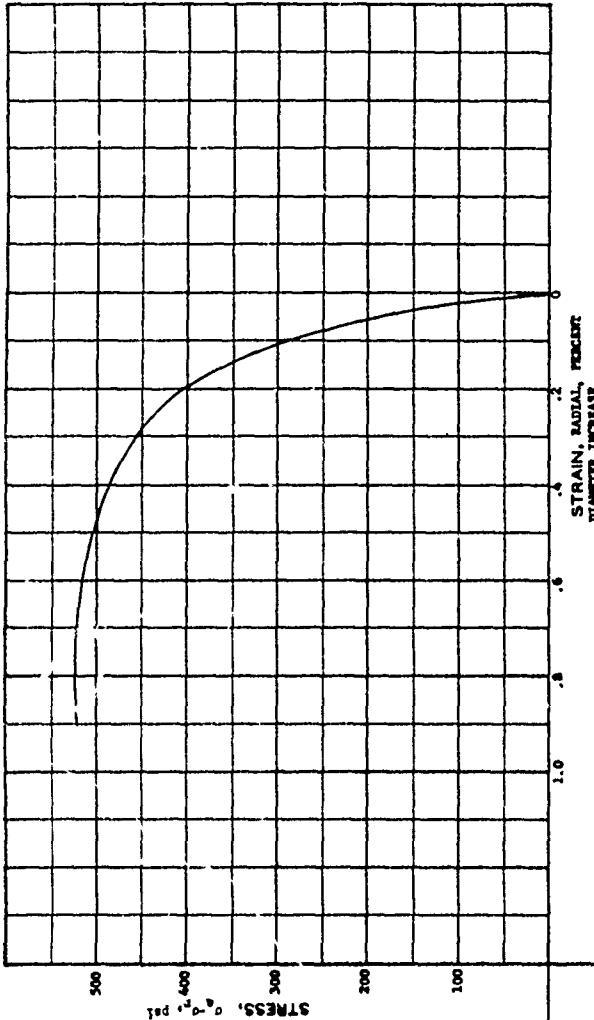
| | |
|----------------------------------|------------------|
| PROJECT | Ga. Tech B-602; |
| Contract No. | DAAG39-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 16 |
| DEPTH | DATE |
| EL. | |
| LL | PL 15 P1 12 |
| DESCRIPTION McCormick Ranch Sand | |

HYDROSTATIC COMPRESSION PHASE

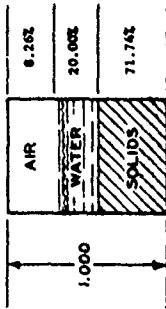


VOLUME STRAIN, $\Delta V/V_0$, PERCENT

HYDROSTATIC PRESSURE, P, PSI



| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.44 | % |
| VOID RATIO | e _o | 0.39 | |
| SATURATION | S _o | 70.78 | % |
| DRY DENSITY | γ_d | 119.53 | FCF |
| WET DENSITY | γ_w | 132.01 | PCF |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D _o | 3.50 | CM |
| SPECIMEN HEIGHT | H _o | 7.79 | CM |



HYDROSTATIC COMPRESSION PHASE

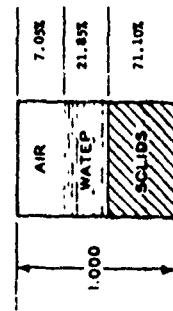
HYDROSTATIC PRESSURE, P, PSI

24

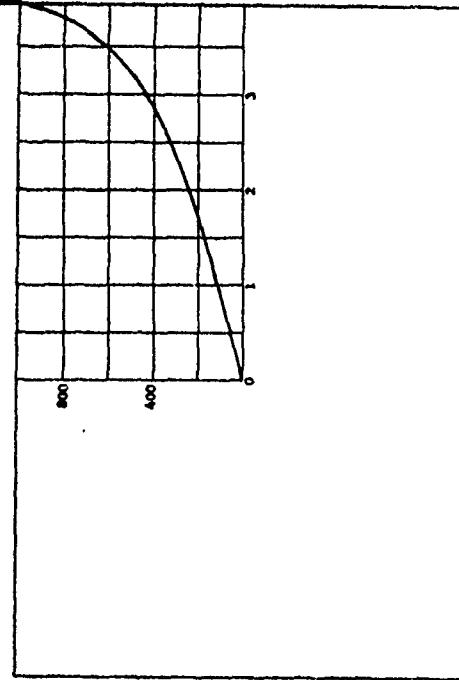
| | |
|----------------------------------|----------------|
| PROJECT | Ge Tech S-602; |
| Contract No. DACAS9-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 16 |
| DEPTH | DATE |
| EL. | |
| L.L. | PL |
| 27 | 15 |
| | P1 |
| | 12 |
| DESCRIPTION McCordick Ranch Sand | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 11.51 % |
| VOID RATIO | e ₀ | 0.41 |
| SATURATION | s ₀ | 75.60 % |
| DRY DENSITY | γ_d | 118.46 PCF |
| WET DENSITY | γ_w | .32.09 PCF |
| SPECIFIC GRAVITY | G ₀ | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.83 CM |

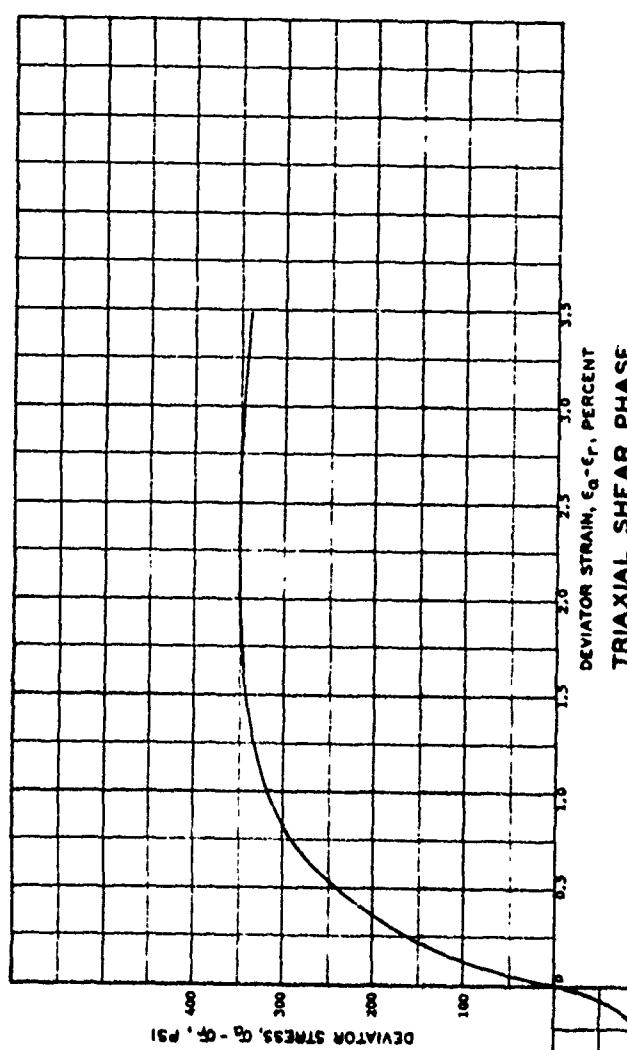


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

25

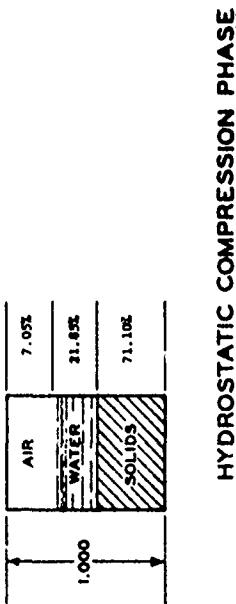
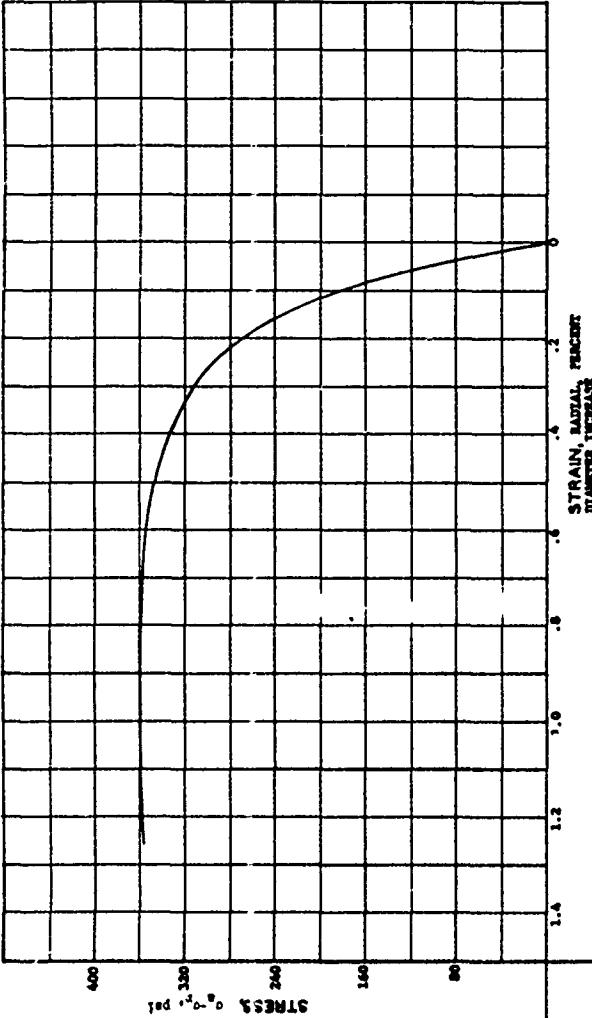


DEVIATOR STRESS, $Q_0 - Q_1$, PSI
DEVIATOR STRAIN, $\epsilon_0 - \epsilon_1$, PERCENT
TRIAXIAL SHEAR PHASE

| | |
|----------------------------------|------------------|
| PROJECT | Geotech S-69: |
| Contract No. | DECA 9-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 27 |
| DEPTH | DATE |
| EL. | |
| L.L. | PL L3 P1 12 |
| DESCRIPTION McCordet Branch Sand | |

VOLMETRIC STRAIN, \DeltaV/V_0 , PERCENT

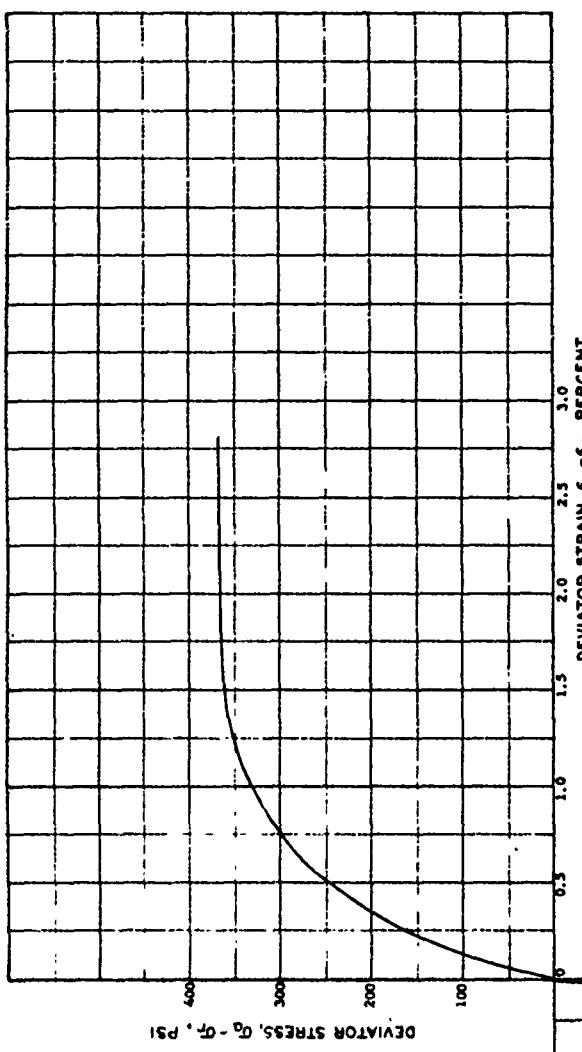
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.51 | % |
| VOID RATIO | e_0 | 0.41 | |
| SATURATION | S_0 | 75.60 | % |
| DRY DENSITY | γ_d | 118.46 | pcf |
| WET DENSITY | γ | 132.09 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.49 | cm |
| SPECIMEN HEIGHT | H_0 | 7.83 | cm |



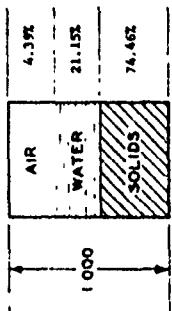
HYDROSTATIC PRESSURE, P, PSI

| | |
|---------------------|-------------------|
| PROJECT | Ge Tech B-602; |
| Contract No. | DA-CA-3-67-C-0031 |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. 27 |
| VE/FH | DATE |
| EL | |
| LL | PL 15 |
| | P1 12 |
| DESCRIPTION | |
| McConnel Ranch Sand | |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 10.44 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | S ₀ | 82.81 % |
| DRY DENSITY | γ_d | 124.05pcf |
| WET DENSITY | γ | 137.25pcf |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.55 cm |

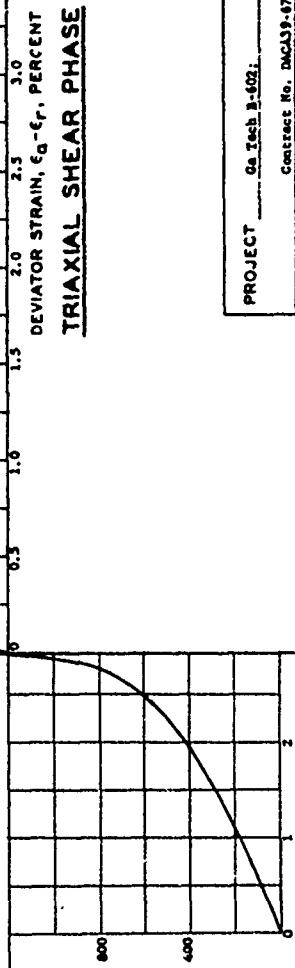


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

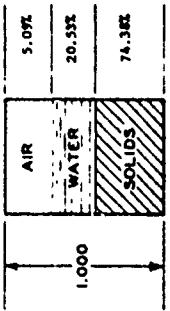
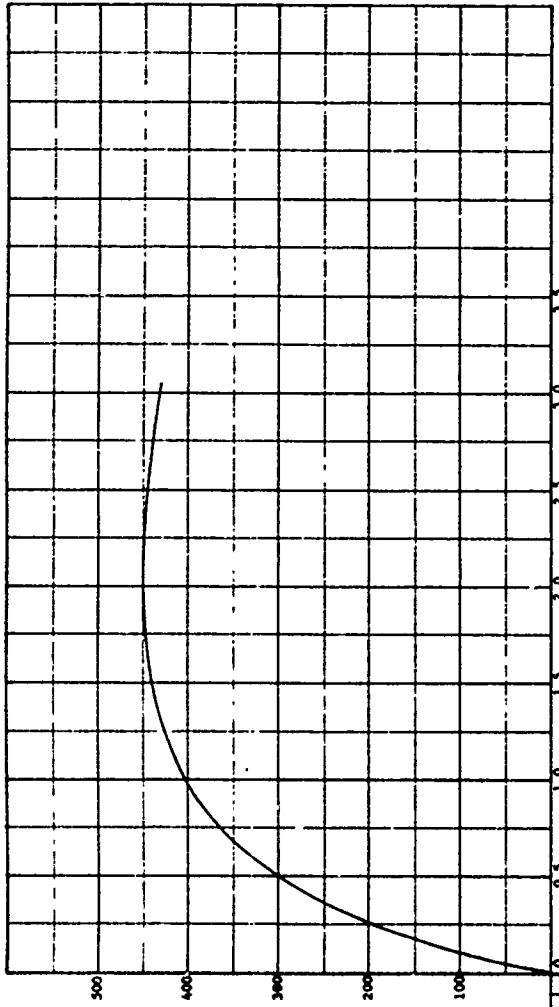
27



| | |
|---------------------------------|------------------|
| PROJECT | Ge Tech B-602; |
| Contractor No. | DAC139-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 34 |
| DEPTH | DATE |
| EL. | |
| LL. | PL 15 P1 12 |
| DESCRIPTION McDonald Ranch Sand | |

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.34 % |
| VOID RATIO | e_0 | 0.3645 |
| SATURATION | S_o | 80.16 % |
| DRY DENSITY | γ_d | 121.97 PCF |
| WET DENSITY | γ | 136.73 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 CM |
| SPECIMEN HEIGHT | H_o | 7.53 CM |

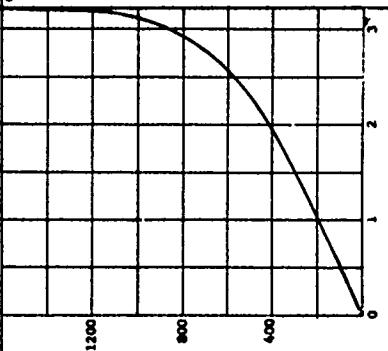
DEVIACTOR STRESS, $G_d - G_f$, PSI



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, p , PSI

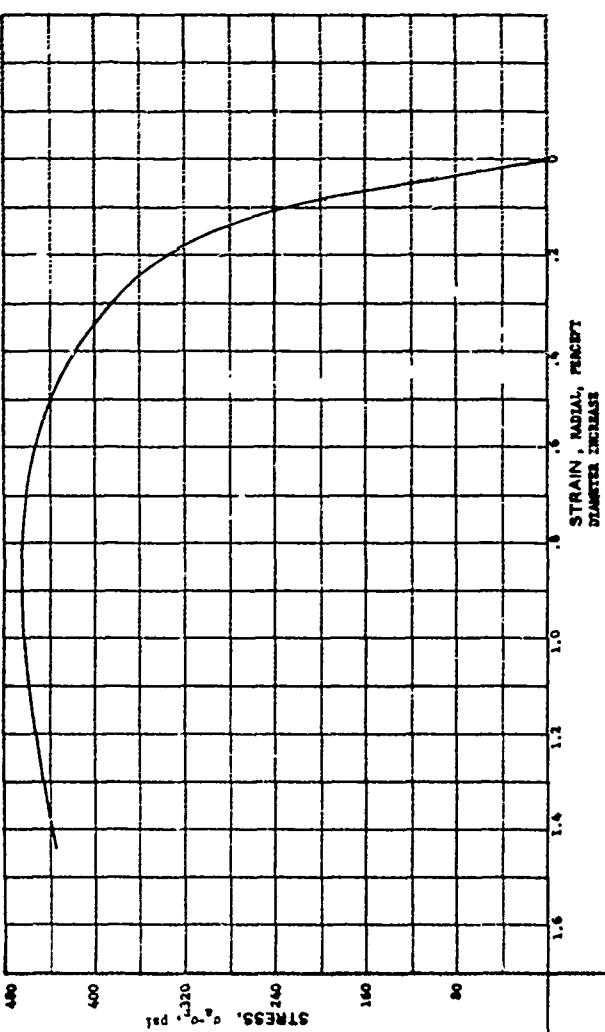
28



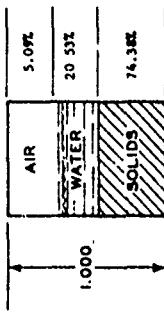
VOLUMETRIC STRAIN, $\delta V/V_0$, PERCENT

| | |
|-------------|----------------------|
| PROJECT | On Tech B-602 |
| Coreset No. | BAC0947-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 15 |
| DEPTH | DATE |
| EL | |
| LL | PL |
| | 15 |
| | P1 |
| | 12 |
| DESCRIPTION | McClellan Ranch Sand |
| | |
| | |
| | |
| | |
| | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.34 | % |
| VOID RATIO | e ₀ | 0.3445 | |
| SATURATION | s ₀ | 60.14 | % |
| DRY DENSITY | γ_d | 123.92 | pcf |
| WET DENSITY | γ_w | 136.73 | pcf |
| SPECIMEN GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.53 | cm |



HYDROSTATIC COMPRESSION PHASE

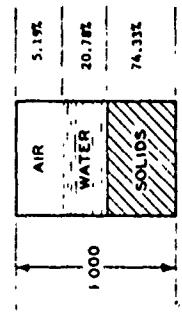


HYDROSTATIC PRESSURE, P, PSI

| | |
|--------------------------------|----------------|
| PROJECT | Geotech B-602; |
| Contract No. DMR39-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 35 |
| DEPTH EL | DATE |
| LL 27 | PL 15 |
| | P1 12 |
| DESCRIPTION McCorck Ranch sand | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|----------------------|------------|--------|-----|
| WATER CONTENT | W | 10.51 | % |
| VOID RATIO | e_0 | 0.35 | |
| SATURATION | S_o | 80.02 | % |
| DRY DENSITY | γ_d | 123.34 | PCF |
| WET DENSITY | γ_w | 136.31 | PCF |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.51 | CM |
| COEF. OF VEN. HEIGHT | H_o | 7.55 | CM |

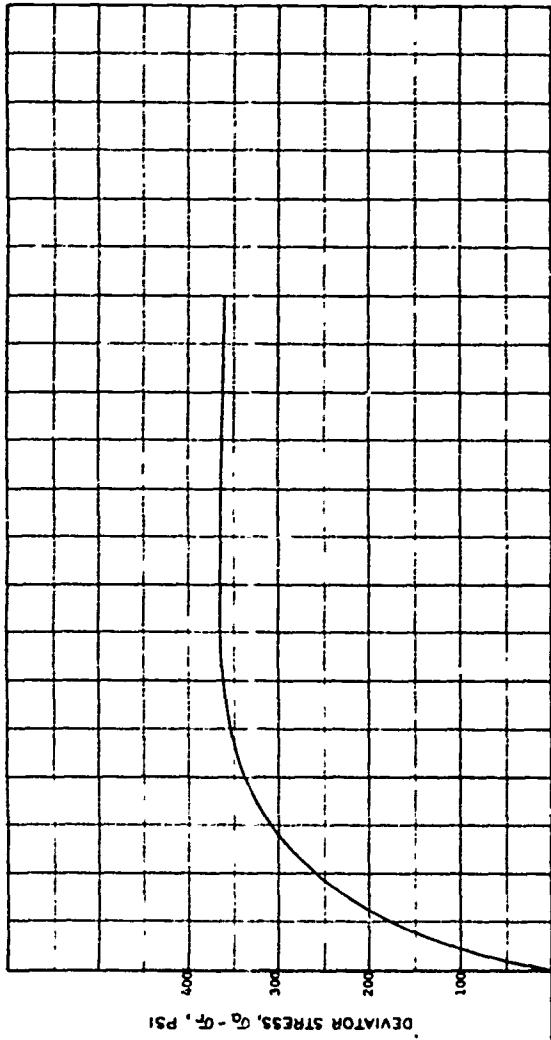


HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P_h , PSI

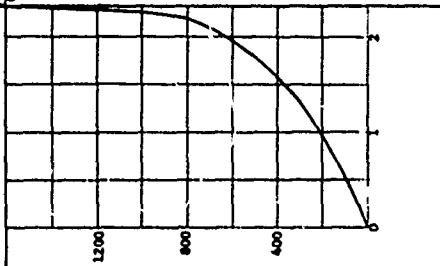
HYDROSTATIC PRESSURE, P_h , PSI

30



TRIAXIAL SHEAR PHASE

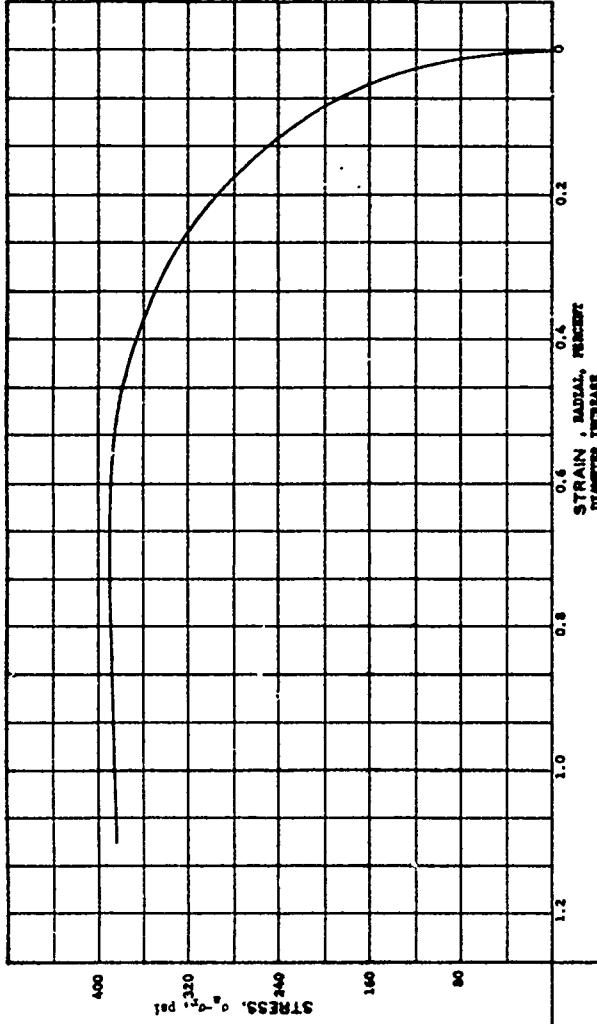
DEVIATOR STRAIN, $\epsilon_d - \epsilon_p$, PERCENT



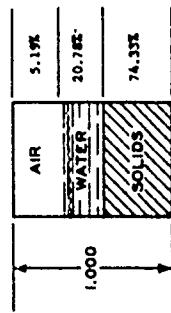
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | |
|---------------------------------|-----------------|
| PROJECT | Co-Tech B-602 |
| Contract No. | DMC39-67-0-0051 |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. 44 |
| DEPTH EL. | DATE |
| LL | PL 15 PL 12 |
| DESCRIPTION McDonald Ranch Sand | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.51 | % |
| VOID RATIO | e_0 | 0.35 | |
| SATURATION | S_o | 60.02 | % |
| DRY DENSITY | γ_d | 123.34 | pcf |
| WET DENSITY | γ | 136.31 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.52 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.55 | cm |



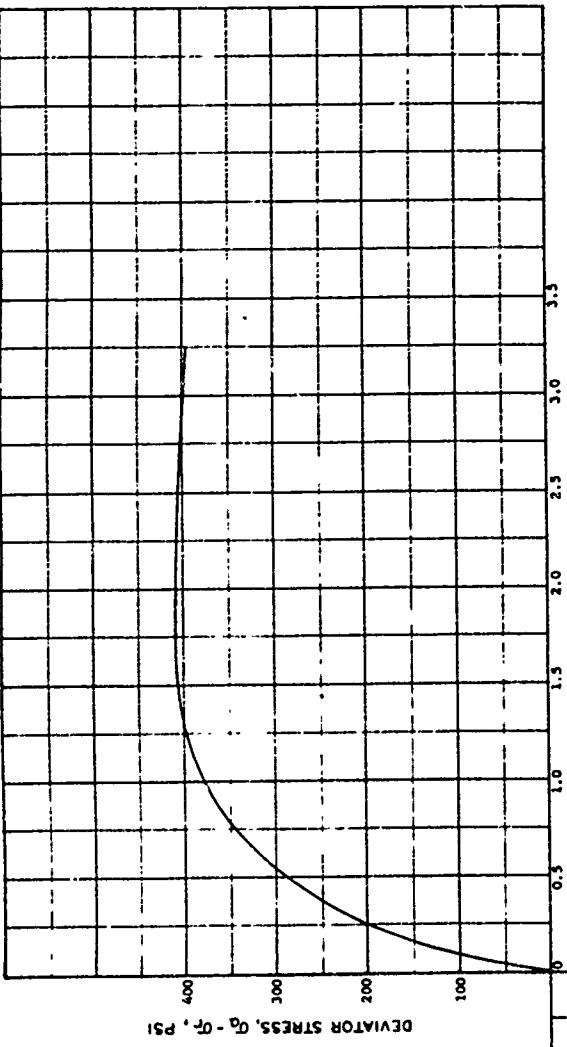
HYDROSTATIC COMPRESSION PHASE



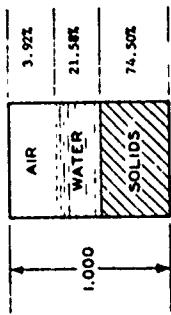
HYDROSTATIC PRESSURE, P , PSI

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

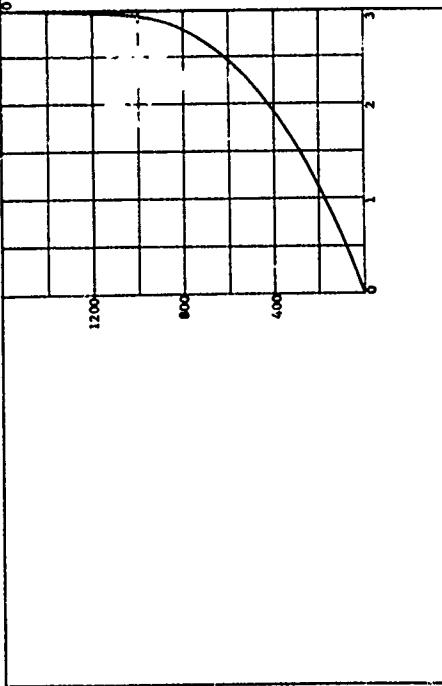
| | |
|---------------------------------|----------------|
| PROJECT | Ge Tech B-602, |
| Contract No. DMA39-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 44 |
| DEPTH | DATE |
| EL. | |
| LL | PL 15 P1 12 |
| DESCRIPTION Macomber Beach Sand | |



| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.85 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 84.61 % |
| DRY DENSITY | γ_d | 124.11pcf |
| WET DENSITY | γ | 137.58pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 cm |
| SPECIMEN HEIGHT | H_b | 7.55 cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, p , PSI

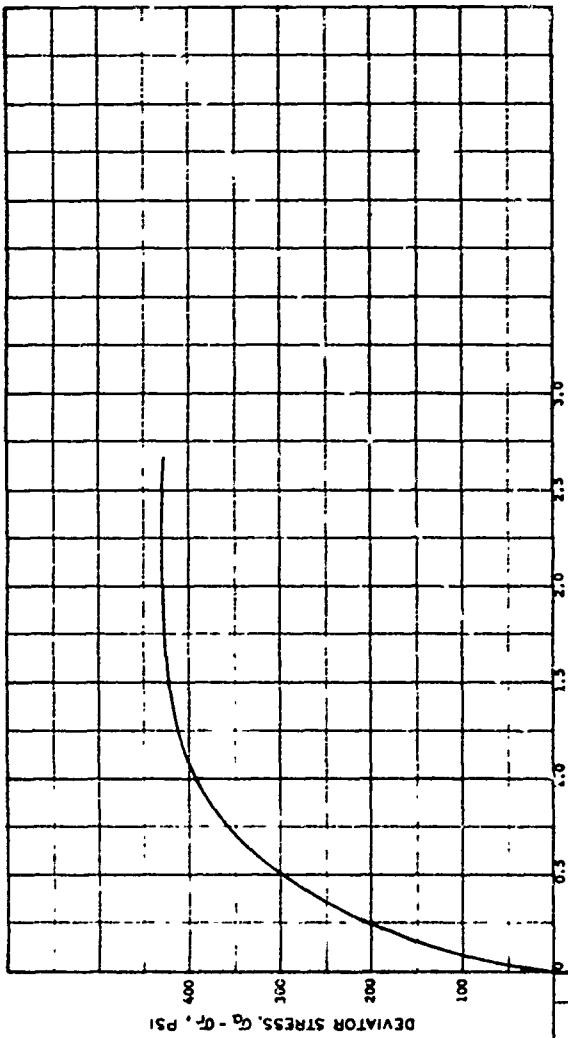
32

TRIAXIAL SHEAR PHASE

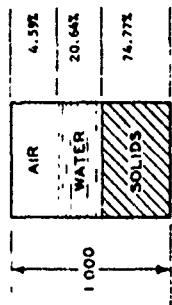
| | | | |
|-----------------------------------|---------------|--------------|----------------|
| PROJECT | Da Tech S-602 | CONTRACT NO. | DA-C-47-C-0031 |
| AREA | | | |
| BORING NO. | SAMPLE NO. | DATE | |
| DEPTH | | | |
| EL. | | | |
| LL | PL | 15 | P1 |
| | | | 12 |
| DESCRIPTION: McCormick Beach Sand | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 10.34 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | s ₀ | 81.81 % |
| DRY DENSITY | γ_d | 126.57pcf |
| WET DENSITY | γ | 137.45pcf |
| PACIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.55 cm |

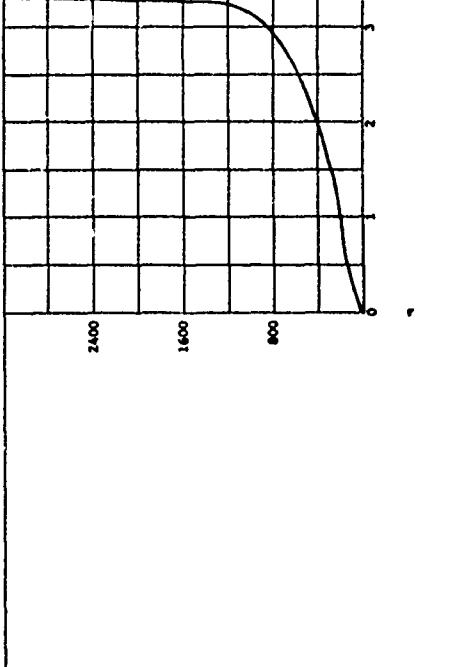


HYDROSTATIC COMPRESSION PHASE



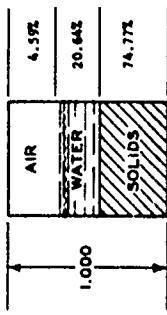
HYDROSTATIC PRESSURE, P, PSI

33



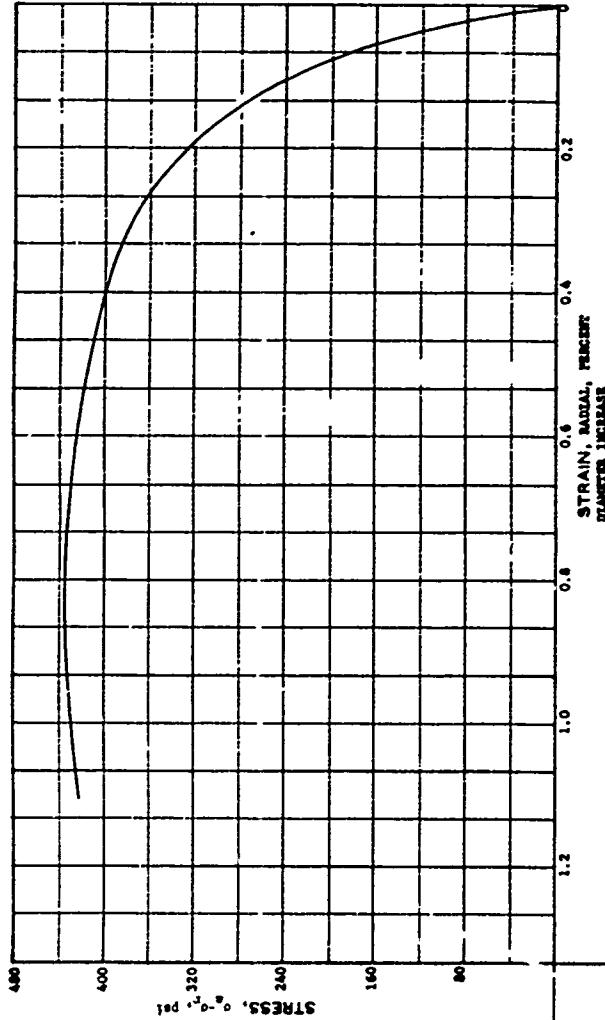
| | |
|----------------------------------|-------------------------------------|
| PROJECT | Geotech 1-08; |
| Contract No. DA-359-67-C-0091 | |
| AREA | |
| BORING NO. | SAMPLE NO. 41 |
| DEPTH | DATE |
| EL. | |
| LL | P ₁ 15 P ₂ 12 |
| DESCRIPTION McCormick Ranch Sand | |

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.35 % |
| VOID RATIO | e_0 | 0.36 |
| SATURATION | S_0 | 81.81 % |
| DRY DENSITY | γ_d | 124.57pcf |
| WET DENSITY | γ' | 137.45pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_0 | 3.49 cm |
| SPECIMEN HEIGHT | H_0 | 7.51 cm |



HYDROSTATIC COMPRESSION PHASE

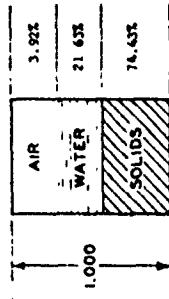
HYDROSTATIC PRESSURE, P, PSI



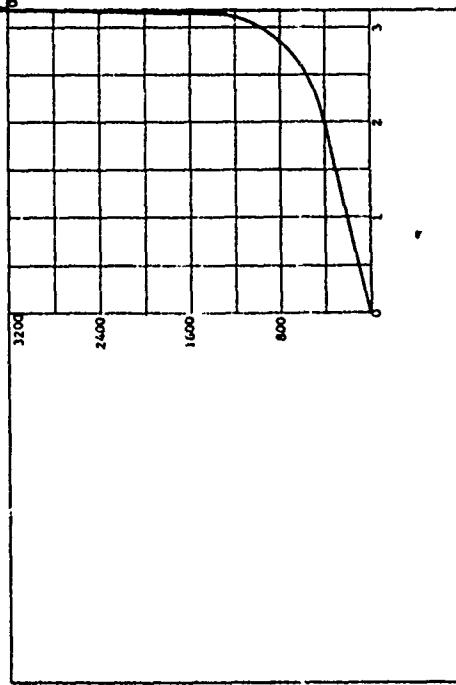
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | | | |
|---------------------------------|----------------|----|----|----|----|
| PROJECT | QA Tech B-0021 | | | | |
| Contract No. DACA99-07-C-0091 | | | | | |
| AREA | | | | | |
| BORING NO. | SAMPLE NO. 41 | | | | |
| DEPTH EL | DATE | | | | |
| LL | 27 | PL | 13 | P1 | 12 |
| DESCRIPTION Sediment Beach Sand | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

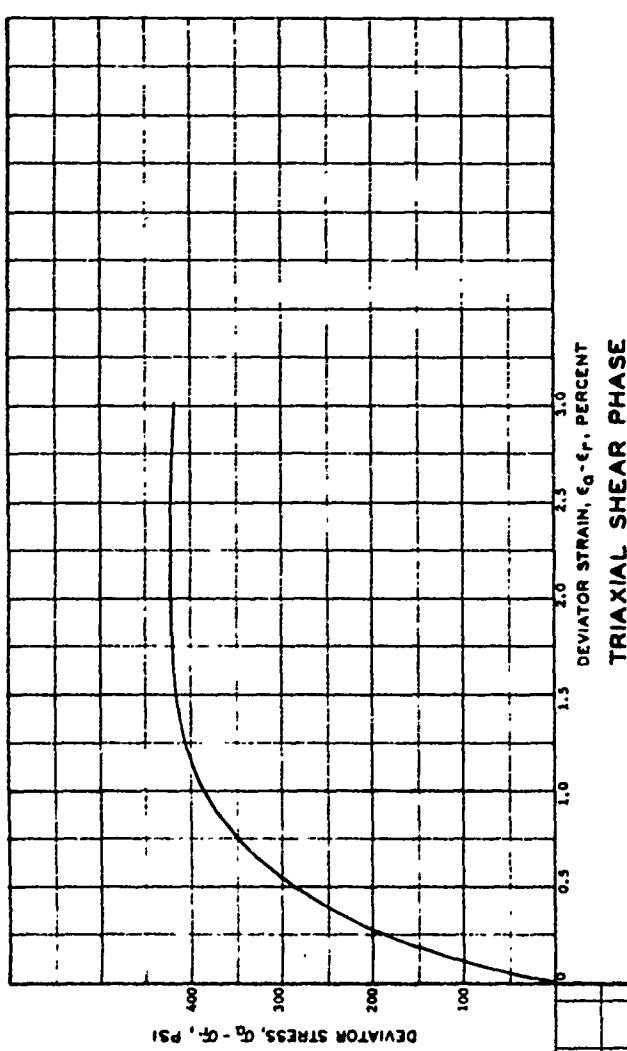
| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 10.89 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | S ₀ | 84.67 % |
| DRY DENSITY | γ_d | 126.00pcf |
| WET DENSITY | γ | 137.51pcf |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.58 cm |



HYDROSTATIC COMPRESSION PHASE

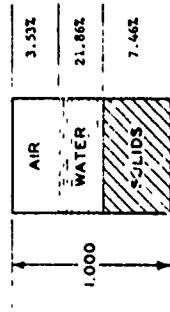


35

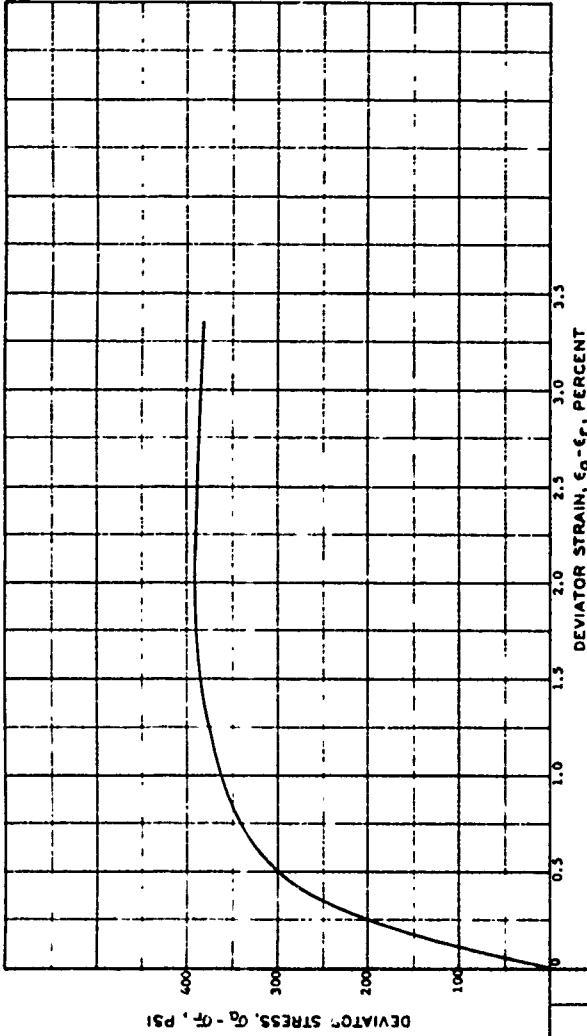
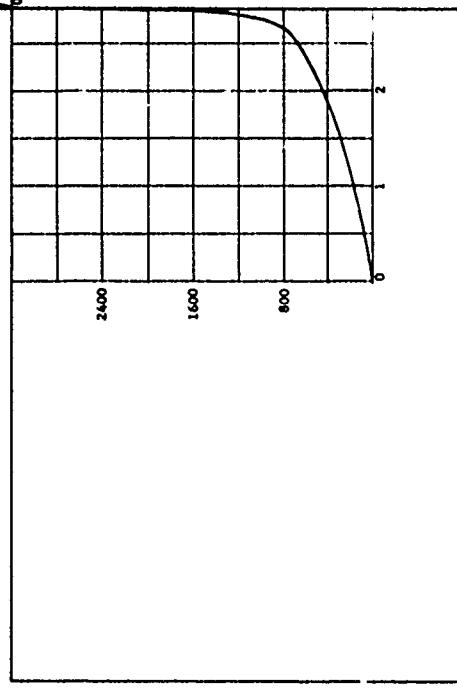


| | |
|--------------------------------|------------------|
| PROJECT | Ge Tech S-4022 |
| Contract No. | DACA39-67-C-0001 |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. 43 |
| DEPTH | DATE |
| EL. | |
| LL | PL |
| | 13 |
| | P1 |
| | 12 |
| DESCRIPTION Hocomat Ranch Site | |

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.98 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 86.11 % |
| DRY DENSITY | γ_d | 124.30pcf |
| WET DENSITY | γ | 137.95pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.49 cm |
| SPECIMEN HEIGHT | H_o | 7.55 cm |



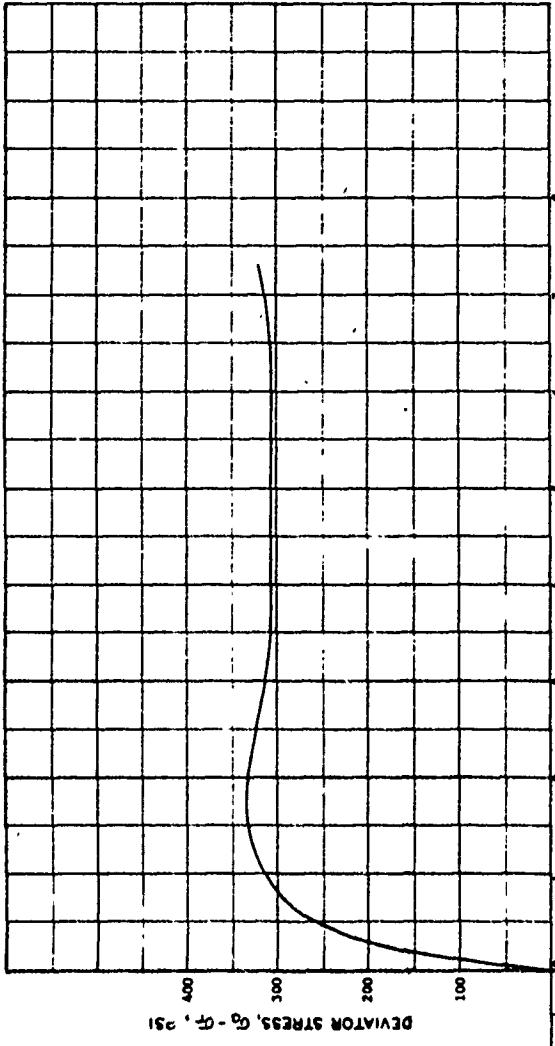
HYDROSTATIC COMPRESSION PHASE



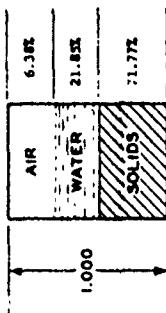
TRIAXIAL SHEAR PHASE

| | |
|---------------------------------|----------------|
| PROJECT | G-Tech 1-602 |
| Contract No. DMA-C3-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 55 |
| DEPTH | DATE |
| EL. - | |
| LL | PL 15 P1 12 |
| DESCRIPTION McComack Ranch Sand | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.40 | % |
| VOID RATIO | e _o | 0.39 | |
| SATURATION | S _o | 77.40 | % |
| DRY DENSITY | γ_d | 119.57 | pcf |
| WET DENSITY | γ | 133.20 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D _o | 3.54 | cm |
| SPECIMEN HEIGHT | H _o | 7.54 | cm |

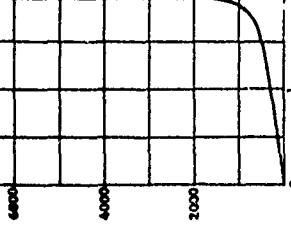


HYDROSTATIC COMPRESSION PHASE



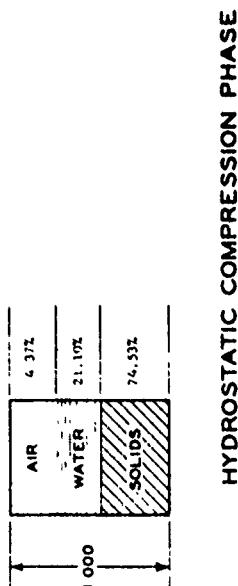
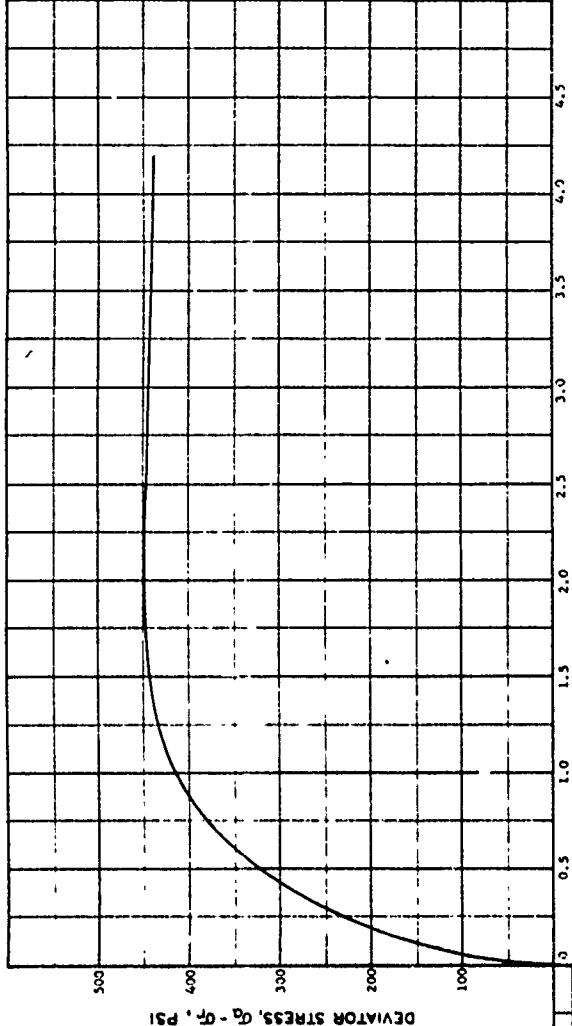
HYDROSTATIC PRESSURE, P, PSI

37



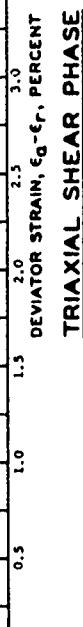
| | | | |
|----------------------------------|----------------|----|----|
| PROJECT | Ga Tech 8-402: | | |
| Contract No. DMA031-67-C-0001 | | | |
| AREA | SAMPLE NO. 39 | | |
| BORING NO. | DATE | | |
| DEPTH | | | |
| EL | | | |
| LL | 27 | PL | 15 |
| | | P1 | 12 |
| DESCRIPTION N-Correct Ranch Sand | | | |

| WATER CONTENT | W | 10.40 | % |
|-------------------|----------------|--------|-----|
| VOID RATIO | e ₀ | 0.34 | |
| SATURATION | S ₀ | 82.65 | % |
| DRY DENSITY | γ_d | 126.18 | pcf |
| WET DENSITY | γ | 137.36 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.55 | cm |



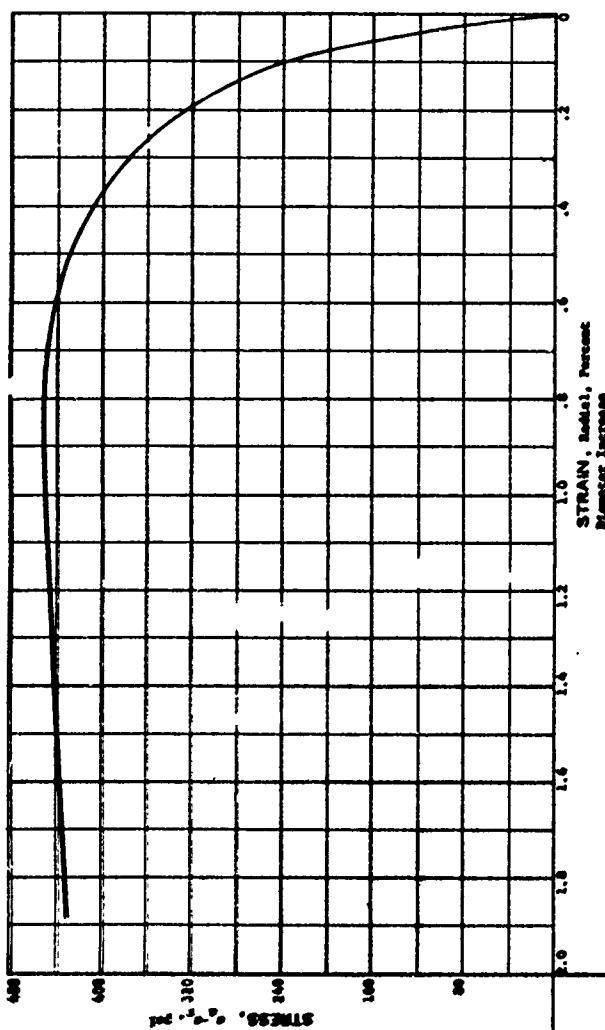
$\Delta V/V_0$, PERCENT

38



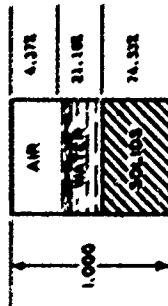
| | | | |
|-------------------------------|-----------------------|----|----|
| PROJECT | Ge Tech B-602 | | |
| Contract No. NACA39 67-C-0451 | | | |
| AREA | | | |
| BORING NO. | | | |
| DEPTH: | | | |
| EL. | | | |
| LL | 27 | PL | 15 |
| | | P1 | 12 |
| DESCRIPTION | Recorciit: Tauch sand | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



HYDROSTATIC COMPRESSION PHASE

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.00 | % |
| VOID RATIO | e _o | 0.34 | |
| SATURATION | S _s | 92.85 | % |
| DRY DENSITY | γ_d | 124.10 | pcf |
| WET DENSITY | γ_w | 127.34 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D _s | 3.50 | cm |
| SPECIMEN HEIGHT | H _s | 7.55 | cm |



HYDROSTATIC PRESSURE, P, PSI

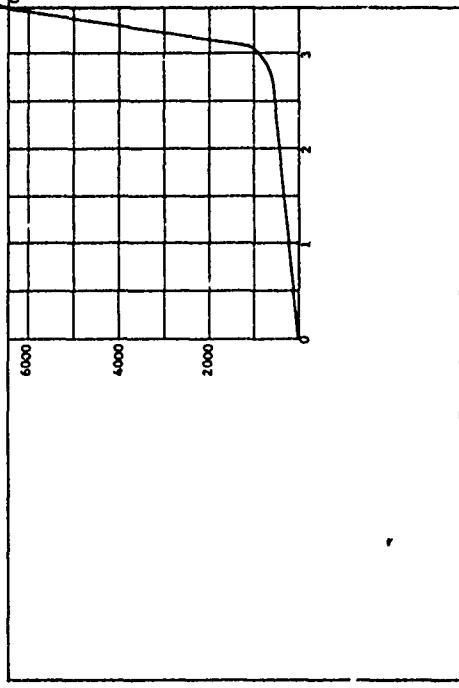
| PROJECT | Co. Test B-662, | SAMPLE NO. | 42 |
|--------------|------------------------------|------------|----|
| | Contract No. B-669-67-C-0051 | | |
| AREA | | | |
| BORING NO. | | | |
| DEPTH EL. | | | |
| L.L. | 27 | P.L. | 15 |
| | | ρ_1 | 12 |
| DESCRIPTION | McDonald Ranch Sand | | |
| | | | |
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| | | | |
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| | | | |
| | | | |

VOLMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.92 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_0 | 80.90 | % |
| DRY DENSITY | γ_d | 122.48 | pcf |
| WET DENSITY | γ | 135.85 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.51 | cm |
| SPECIMEN HEIGHT | H_o | 7.56 | cm |

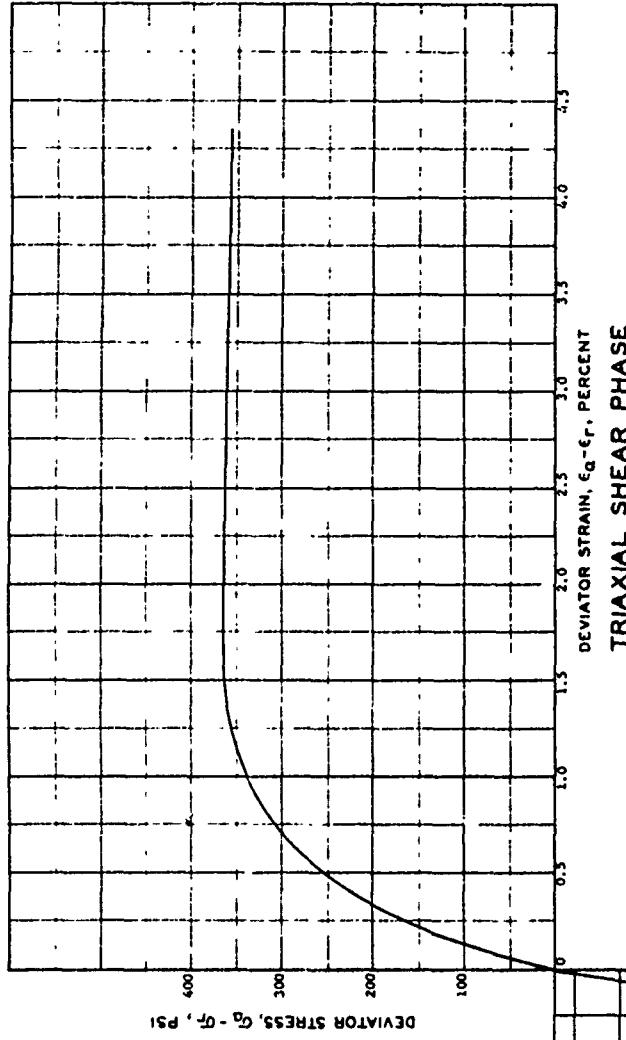


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

40

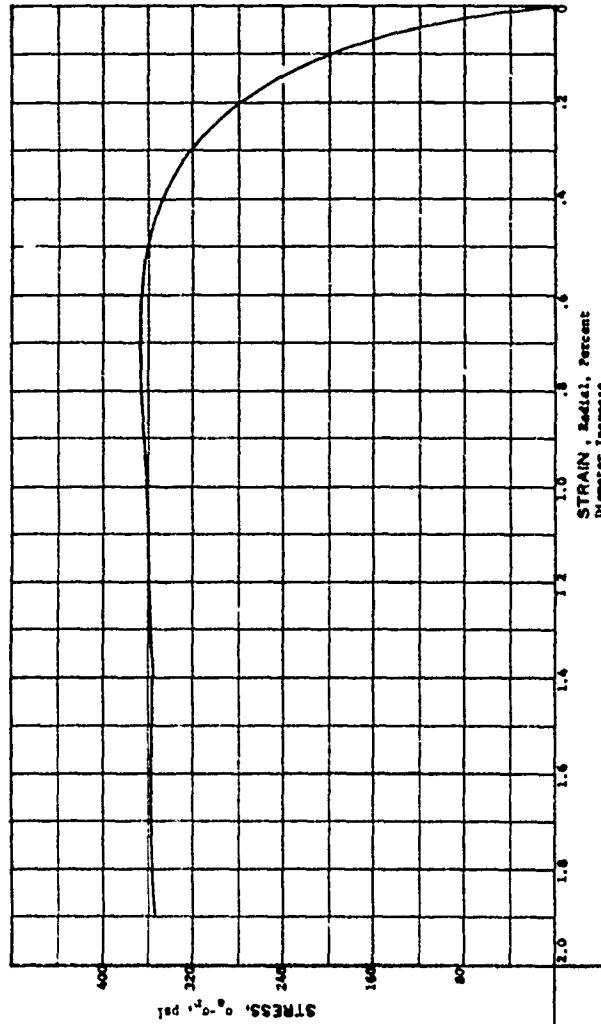


DEVIATOR STRESS, G-d - q-f, PSI
TRIAXIAL SHEAR PHASE

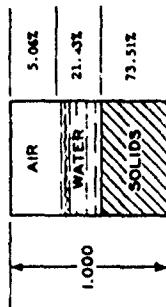
| | | | |
|----------------------------------|---------------|------------|----|
| PROJECT | QA Tech B-602 | SAMPLE NO. | 56 |
| Contract No. DAAG39-67-C-0031 | | DATE | |
| AREA | | | |
| BORING NO. | | EL | |
| DEPTH | | LL | |
| PL | 27 | P1 | 12 |
| DESCRIPTION McComatek Ranch Sand | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.92 | % |
| VOID RATIO | e ₀ | 0.36 | |
| SATURATION | s ₀ | 80.90 | % |
| DRY DENSITY | γ_d | 122.48 | pcf |
| WET DENSITY | γ_w | 135.85 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.51 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.56 | cm |



HYDROSTATIC COMPRESSION PHASE



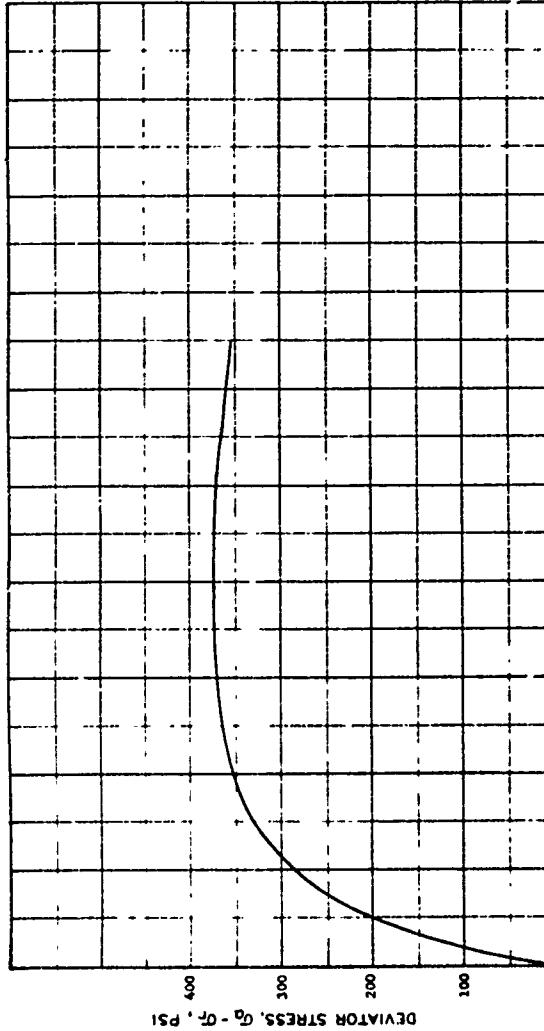
HYDROSTATIC PRESSURE, P, PSI

41

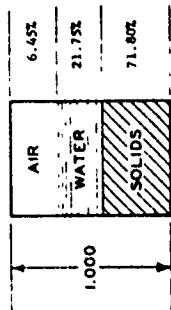
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | |
|-----------------------------------|------------------|
| PROJECT | Ge-Tech B-002; |
| Contract No. | DAAG39-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 54 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 |
| | P1 12 |
| DESCRIPTION McCormick Branch Sand | |

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.34 | % |
| VOID RATIO | e_0 | 0.39 | |
| SATURATION | S_o | 77.13 | % |
| DRY DENSITY | γ_d | 119.63 | PCF |
| WET DENSITY | γ | 133.20 | PCF |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.55 | CM |
| ORIGIN HEIGHT | H_o | 7.55 | CM |



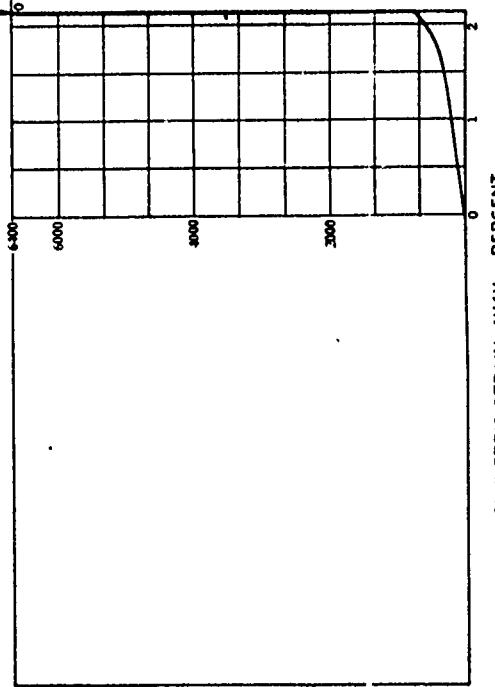
HYDROSTATIC COMPRESSION PHASE



* HYDROSTATIC PRESSURE, p , PSI

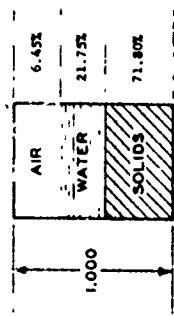
42

TRIAXIAL SHEAR PHASE

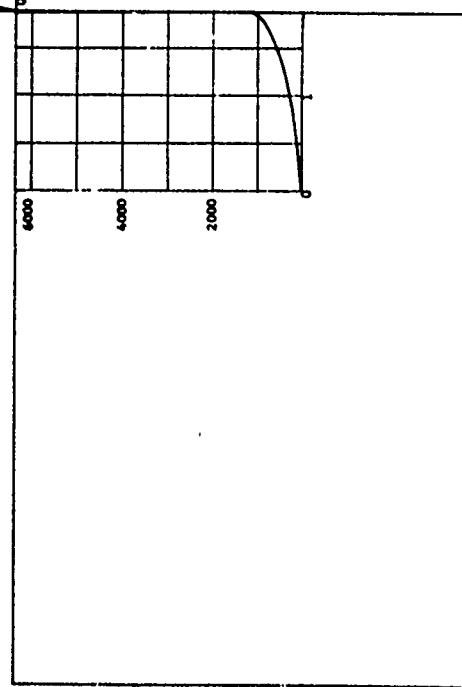


| | | | |
|----------------------------------|----------------|----|----|
| PROJECT | D-7 Tech 3-602 | | |
| Contract No. DA-CA-3-67-C-0031 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 61 | | |
| DEPTH EL. | DATE | | |
| LL | PL | 15 | P1 |
| DESCRIPTION McCornack Ranch Sand | | | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.34 | % |
| VOID RATIO | e ₀ | 0.39 | |
| SATURATION | s ₀ | 77.13 | % |
| DRY DENSITY | γ_d | 119.63 | pcf |
| WET DENSITY | γ_w | 133.20 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.55 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.35 | cm |

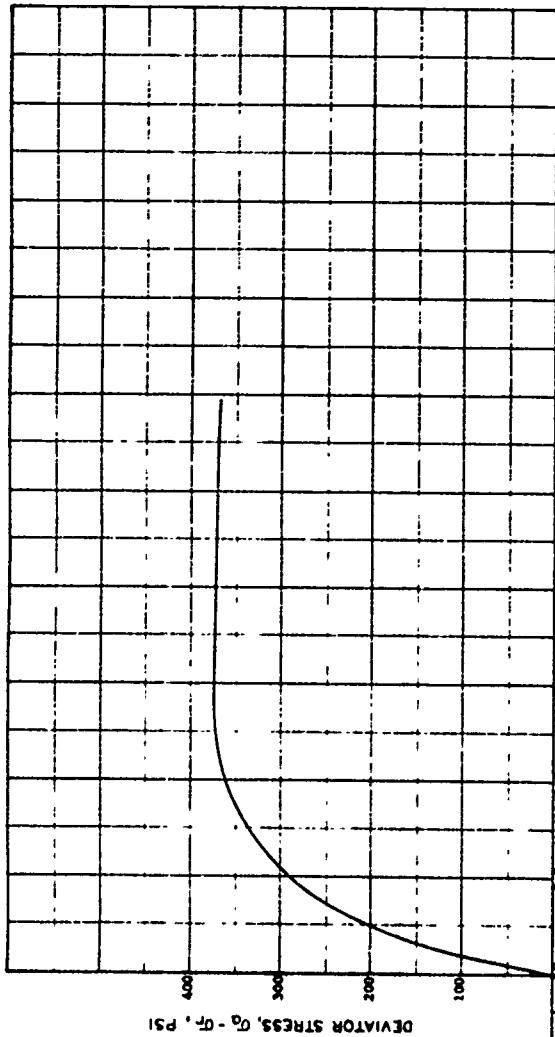


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

43

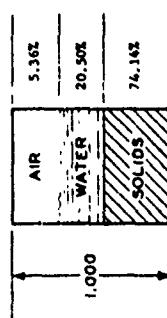
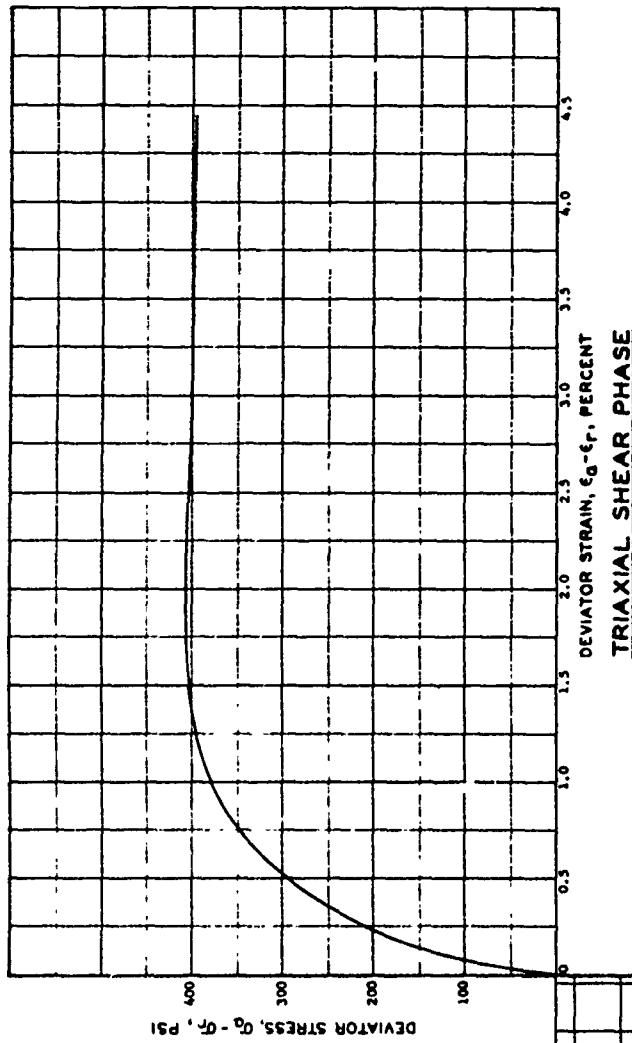


TRIAXIAL SHEAR PHASE

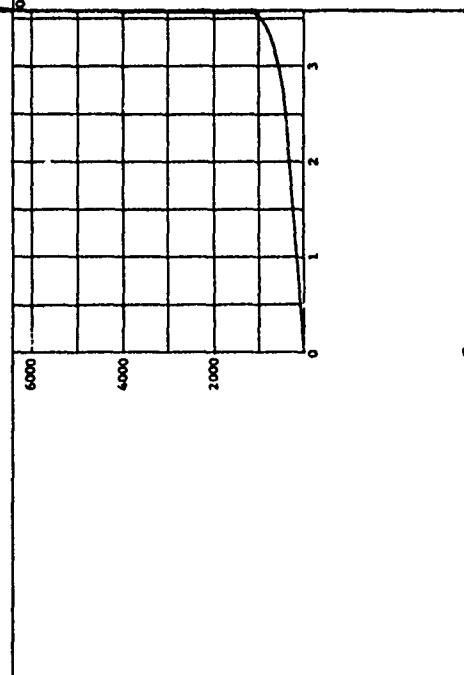
DEVIATOR STRAIN, $\epsilon_d - \epsilon_f$, PERCENT

| | |
|----------------------------------|----------------|
| PROJECT | as Tech 8-602, |
| Contract No. DUCAS 67-C-0051 | |
| AREA | SAMPLE NO. 63 |
| BORING NO. | DATE |
| DEPTH | |
| EL. | |
| LL | PL 13 |
| | PI 12 |
| DESCRIPTION McCormick Ranch Sand | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.35 | % |
| VOID RATIO | e ₀ | 0.35 | |
| SATURATION | S ₀ | 79.28 | % |
| DRY DENSITY | γ_d | 123.53 | pcf |
| WET DENSITY | γ | 136.32 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.51 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.53 | cm |

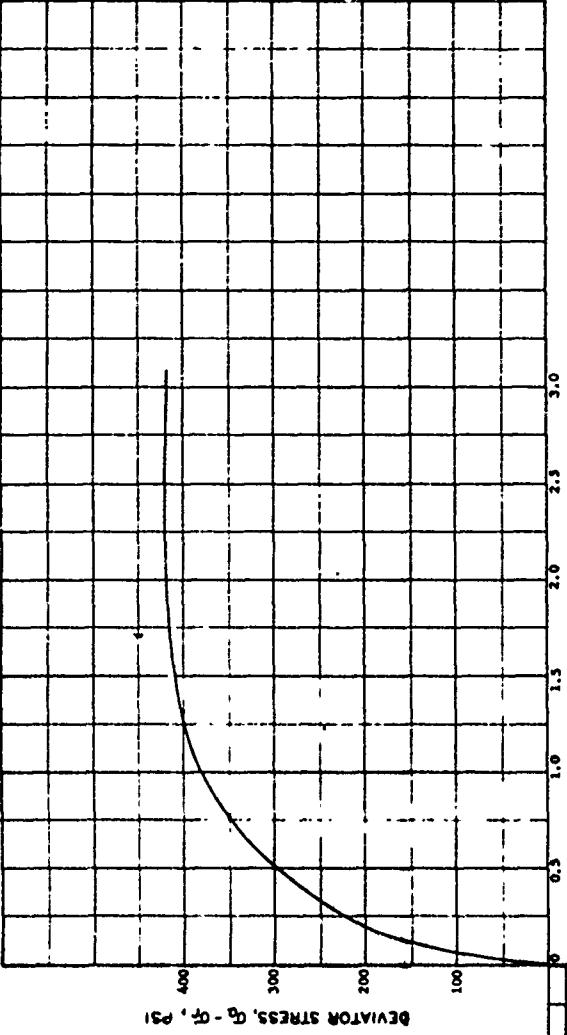


HYDROSTATIC COMPRESSION PHASE

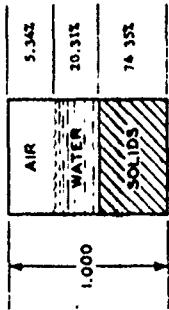


| | |
|----------------------------------|------------------|
| PROJECT | Ge Tech 8-602 |
| Contract No. | DMCAG-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. |
| DEPTH | DATE |
| EL. - | |
| LL | PL 15 P1 12 |
| DESCRIPTION McCormick Beach Sand | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.23 | % |
| VOID RATIO | e ₀ | 0.35 | |
| SATURATION | S _o | 79.19 | % |
| DRY DENSITY | γ_d | 123.48 | pcf |
| WET DENSITY | γ | 136.36 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.54 | cm |



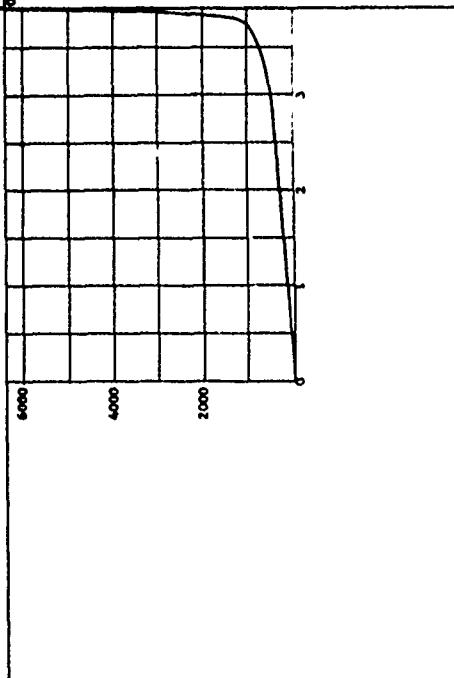
HYDROSTATIC COMPRESSION PHASE



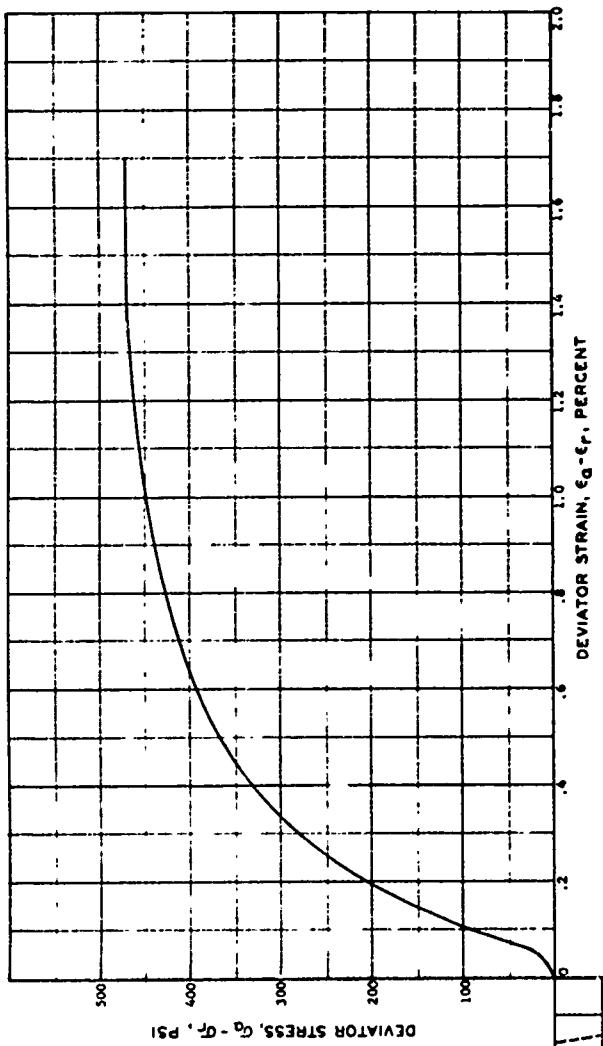
HYDROSTATIC PRESSURE, P, psi

45

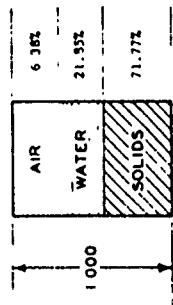
TRIAXIAL SHEAR PHASE



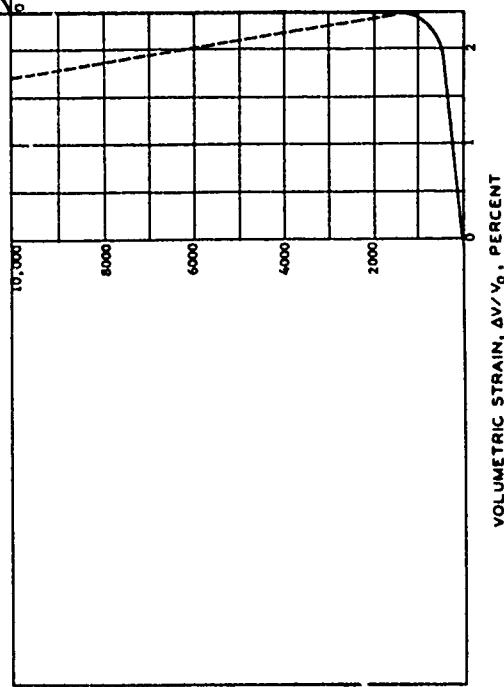
| | |
|------------------------------|---------------------|
| PROJECT | Geotech S-602: |
| Contract No. DMR39-67-C-0031 | |
| AREA | SAMPLE NO. 177 |
| BORING NO. | DATE |
| DEPTH | |
| EL. | |
| L.L. | P.L. |
| | 15 |
| | P1 |
| | 12 |
| DESCRIPTION | McComick Ranch Sand |



| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.40 | % |
| VOID RATIO | e_0 | 0.39 | |
| SATURATION | s_0 | 77.40 | % |
| DRY DENSITY | γ_d | 119.57 | PCF |
| WET DENSITY | γ | 133.20 | PCF |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.55 | CM |
| APPARENT WEIGHT | M_0 | 7.55 | CM |



HYDROSTATIC COMPRESSION PHASE



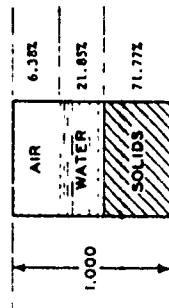
HYDROSTATIC PRESSURE, P, PSI

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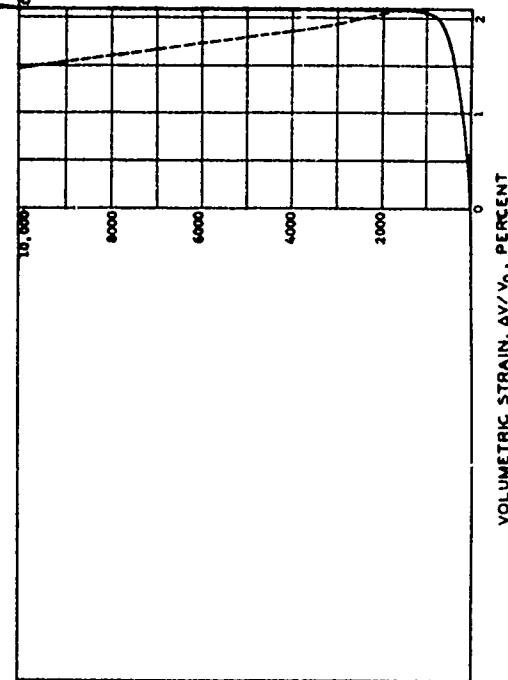
| | |
|-----------------------------------|-----------------|
| PROJECT | Ge. Tech B-602, |
| Contract No. DMRCA9-67-C-0031 | |
| AREA | SAMPLE NO. 38 |
| BORING NO. | DATE |
| DEPTH | |
| EL. | |
| LL | PL 15 |
| | P1 12 |
| DESCRIPTION: McCormick Ranch Sand | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

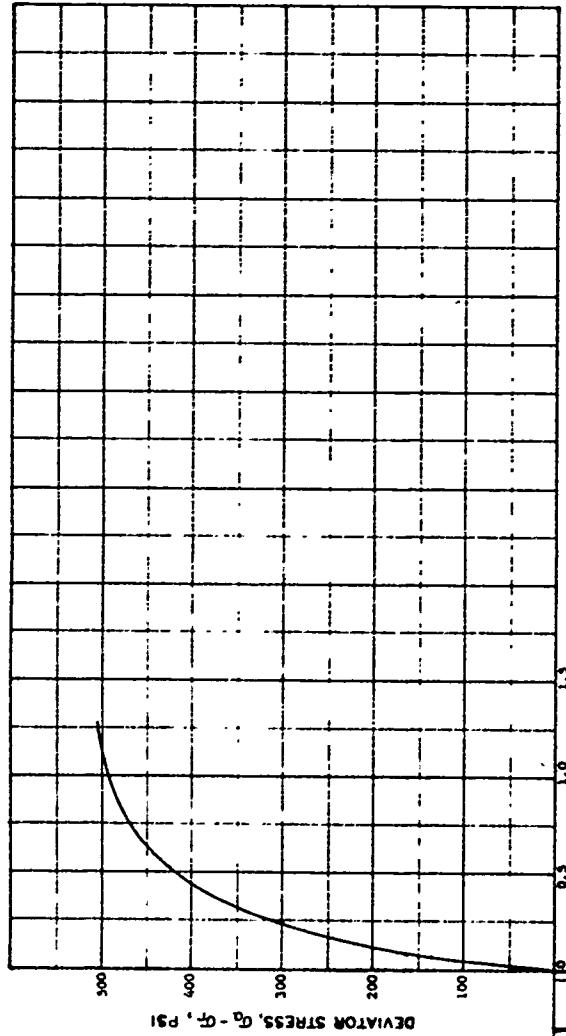
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.40 | % |
| VOID RATIO | e_0 | 0.39 | |
| SATURATION | S_g | 77.40 | % |
| DRY DENSITY | γ_d | 119.57 | pcf |
| WET DENSITY | γ | 133.20 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.36 | cm |
| SPECIMEN HEIGHT | H_o | 7.54 | cm |



HYDROSTATIC COMPRESSION PHASE

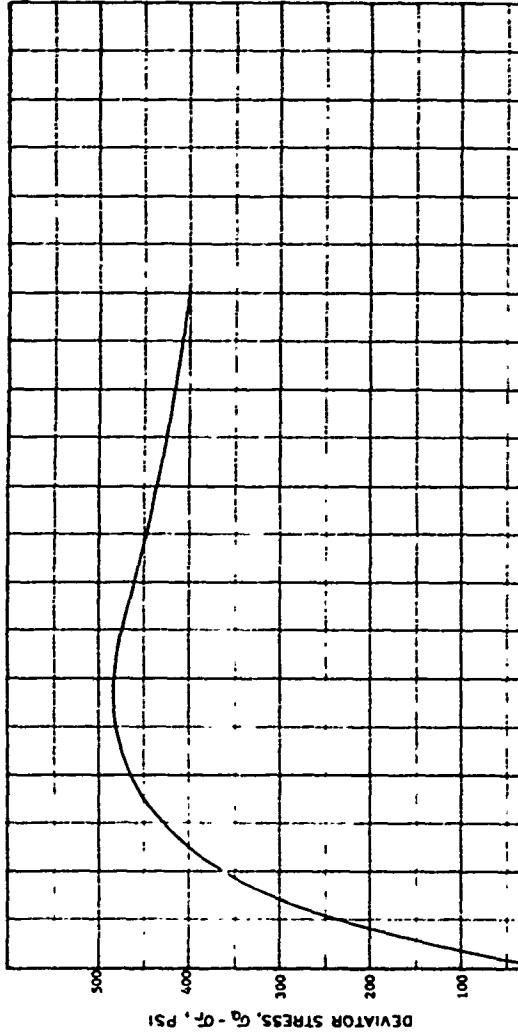


TRIAXIAL SHEAR PHASE

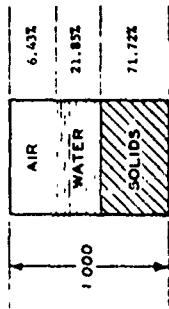


| | |
|---------------------------------|-----------------|
| PROJECT | G4 Tech 8-402 |
| Contract No. | DACAR-67-C-0031 |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL. | |
| DATE | |
| LL | 27 |
| PL | 13 |
| P1 | 12 |
| 12 | |
| DESCRIPTION McGinnis Ranch Sand | |

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 11.41 % |
| VOID RATIO | e _o | 0.39 |
| SATURATION | s _o | 77.26 % |
| DRY DENSITY | γ _d | 119.48 PCF |
| WET DENSITY | γ | 133.12 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D _o | 3.57 CM |
| SPECIMEN HEIGHT | H _o | 7.50 CM |

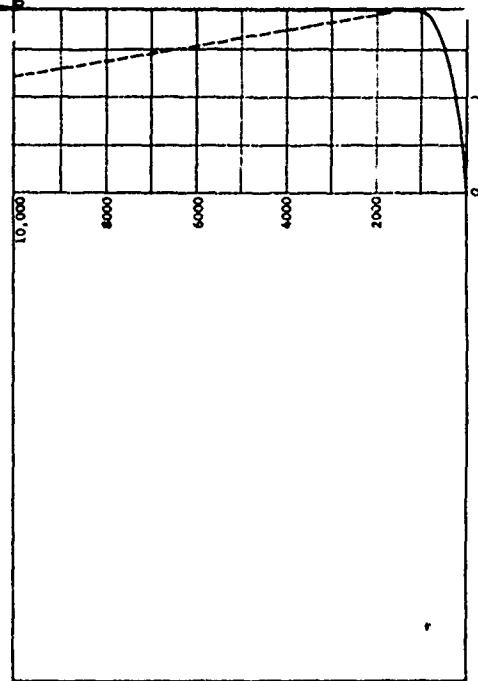
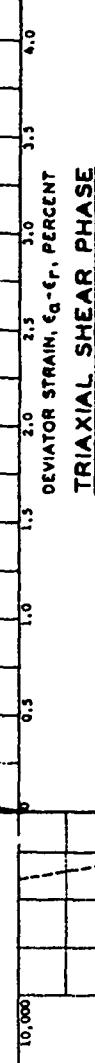


HYDROSTATIC COMPRESSION PHASE



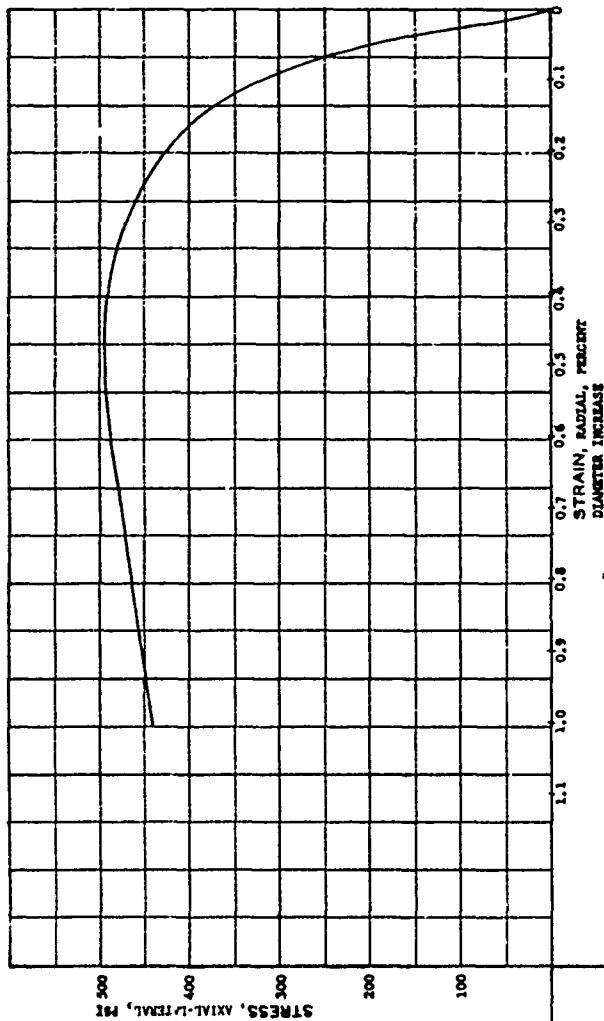
- HYDROSTATIC PRESSURE, P, PSI

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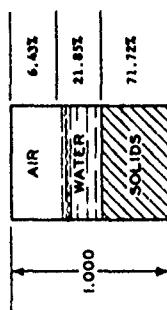


| | |
|--------------------------------|----------------------|
| PROJECT | G- Tech B-002 |
| Contract No. | DMC39-67-C-0031 |
| AREA | |
| BORING NO. | |
| DEPTH | |
| E.L. | |
| LT | |
| PL | 15 |
| P1 | 12 |
| DESCRIPTION | McGinnish Ranch sand |
| Tetrahedral Test @ 10,000 psi. | |

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.41 | % |
| VOID RATIO | e_0 | 0.39 | |
| SATURATION | S_o | 77.26 | % |
| DRY DENSITY | γ_d | 119.48 | PCF |
| WET DENSITY | γ' | 133.12 | PCF |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.57 | CM |
| SPECIMEN HEIGHT | H_0 | 7.50 | CM |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

49

| | |
|--------------------------------|----------------|
| PROJECT | Ga Tech B-6021 |
| Contract No. DAGAS12-47-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 59 |
| DEPTH | DATE |
| EL | |
| LL | PL |
| | 13 |
| | P1 |
| | 12 |

DESCRIPTION: McCombish, North Sand
TESTED TO 10,000 PSI

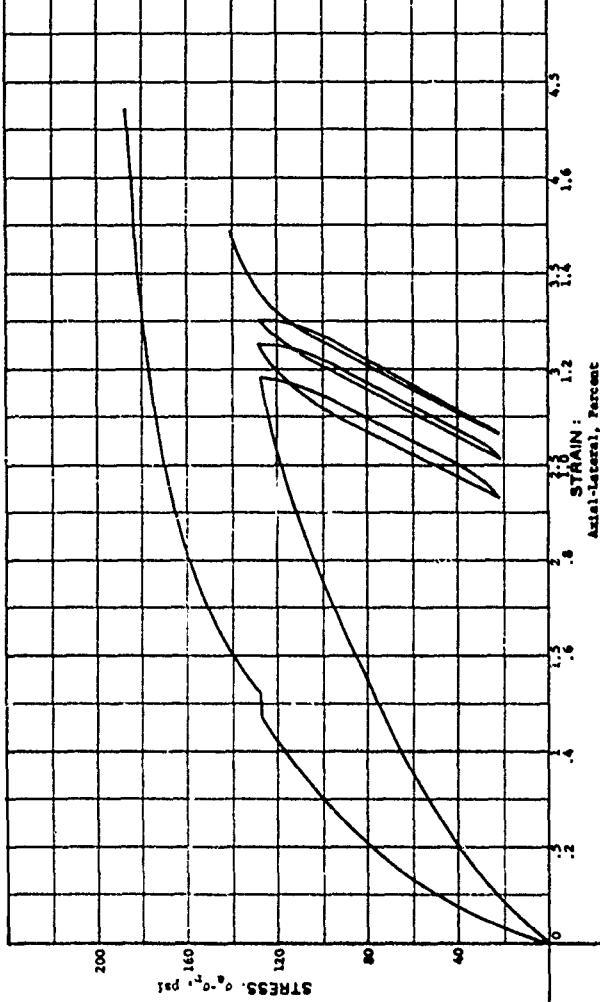
Group B

Triaxial Tests, Cyclic at 35%

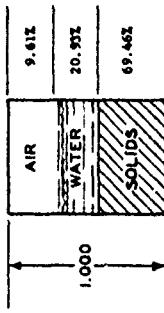
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|-------------------|----------------|------------|
| WATER CONTENT | w | 11.28 % |
| VOID RATIO | e ₀ | 0.44 |
| SATURATION | s _o | 68.52 % |
| DRY DENSITY | γ_d | 115.72 PCF |
| WET DENSITY | γ | 128.78 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.51 CM |

STRESS, σ , psi



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P , psi

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VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

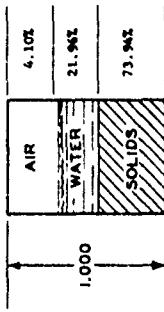
PROJECT Ge Tech 3-602;
Contract No. DACA39-67-C-0031

AREA

| BORING NO. | SAMPLE NO. | DATE |
|------------|------------|-------|
| LL 27 | PL 15 | P1 12 |

DESCRIPTION McCordick Ranch Sand
Initial-Cycle Shear @ 1%

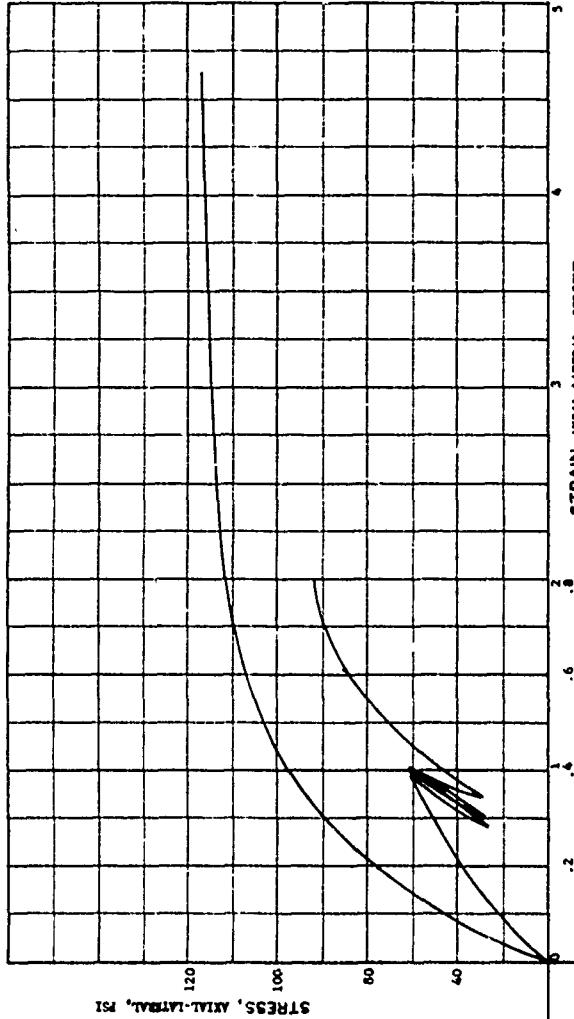
| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 11.12 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_0 | 84.28 % |
| DRY DENSITY | γ_d | 123.20pcf |
| WET DENSITY | γ | 136.90pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.51 cm |
| CONFINING HEIGHT | H_o | 7.50 cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

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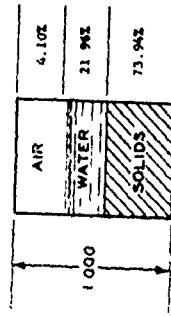


STRAIN, AXIAL-LATERAL, PERCENT

| | | |
|---------------------------------|---------------------------------------|-----|
| PROJECT | Georgia Institute of Technology B-602 | |
| Contract No. DBCA39-67-C-0031 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. | 112 |
| DEPTH | | |
| EL | | |
| LL | PL | 15 |
| | PI | 12 |
| DESCRIPTION McCorell Ranch Sand | | |
| Triaxial Cyclic @ 3% | | |
| Lateral Pressure, 100 psi | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

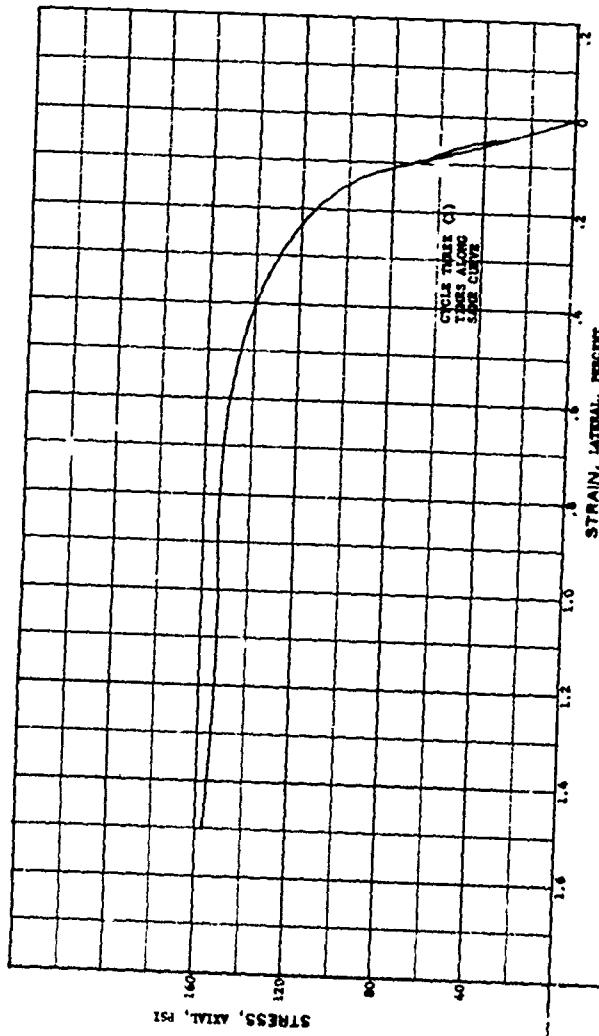
| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 11.12 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 64.28 % |
| DRY DENSITY | γ_d | 123.20pcf |
| WET DENSITY | γ | 136.90pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.51 cm |
| SPECIMEN HEIGHT | H_o | 7.50 cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, p , PSI

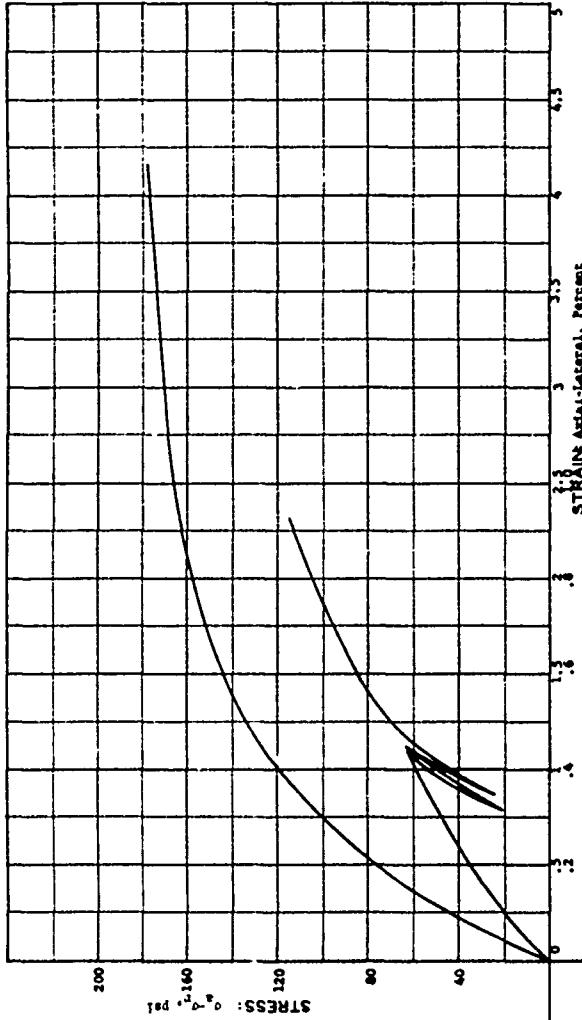
55



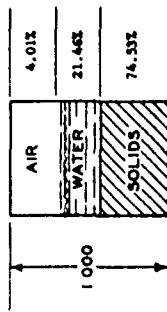
| | |
|--------------|---------------------------------------|
| PROJECT | Georgia Institute of Technology B-602 |
| Contract No. | DAC33-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 112 |
| DEPTH EL | DATE |
| DESCRIPTION | Mccormick Ranch Sand |
| | Triaxial Specie G-355 |
| | Lateral Pressure, 100 psi |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.78 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 84.25 % |
| DRY DENSITY | γ_d | 126.18pcf |
| WET DENSITY | γ' | 137.57pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_0 | 3.32 cm |
| SPECIMEN HEIGHT | H_0 | 7.44 cm |



HYDROSTATIC COMPRESSION PHASE



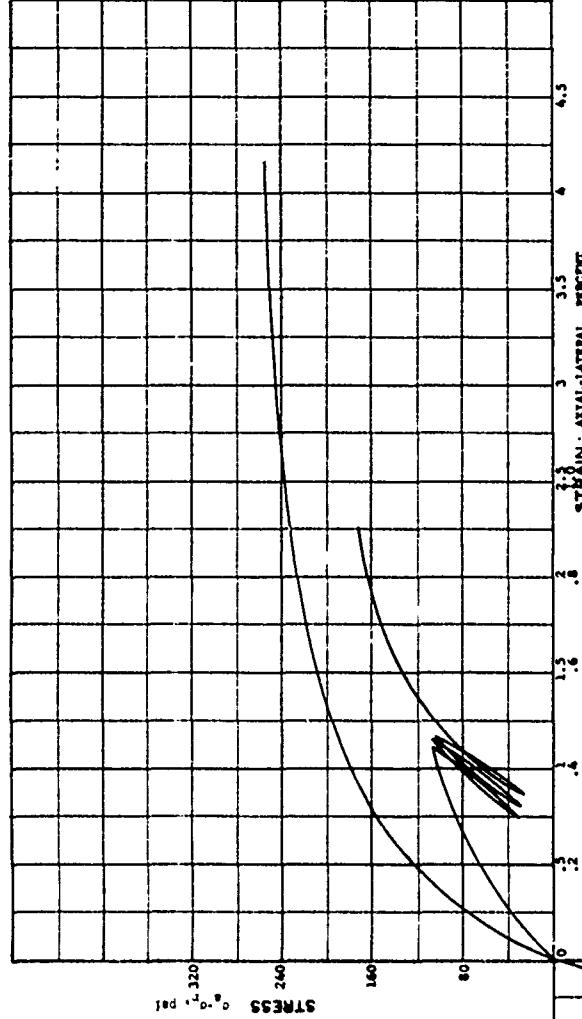
HYDROSTATIC PRESSURE, P , PSI

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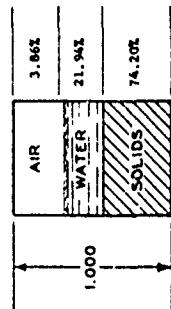
| | |
|---|----------------|
| PROJECT Georgia Institute of Technology S-602 | |
| Contract No. DACA39-67-C-0031 | |
| AREA | SAMPLE NO. 113 |
| BORING NO. | DATE |
| DEPTH | |
| EL | |
| LL | PL 15 PI 12 |
| DESCRIPTION McComack Ranch Sand | |
| Triaxial-Cyclic Shear Q-252 | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.07 | % |
| VOID RATIO | e_0 | 0.35 | |
| SATURATION | S_0 | 85.03 | % |
| DRY DENSITY | γ_d | 123.62 | pcf |
| WET DENSITY | γ | 137.31 | pcf |
| GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.51 | cm |
| SPECIMEN HEIGHT | H_0 | 7.50 | cm |



HYDROSTATIC COMPRESSION PHASE

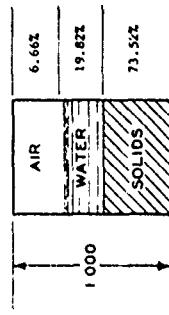


HYDROSTATIC PRESSURE, P, PSI

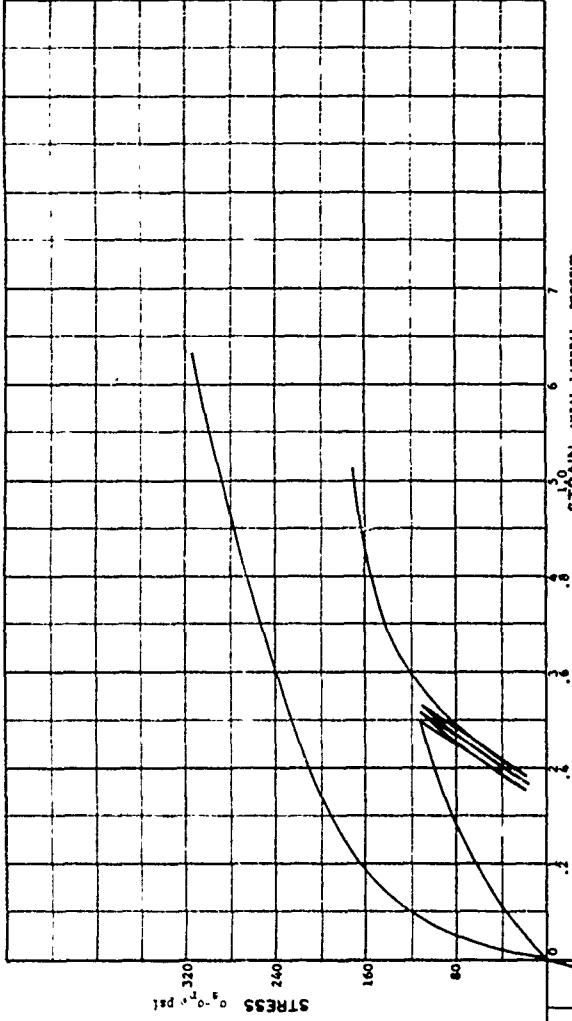
| | |
|---|----------------|
| PROJECT Georgia Institute of Technology E-602 | |
| Contract No. DA-39-67-C-0931 | |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. 116 |
| DEPTH | DATE |
| EL. | |
| LL 27 | PL 15 |
| | P1 12 |
| DESCRIPTION McCormick Ranch Sand | |
| TRIAxIAL CYCLE SHEAR @ 35% | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.10 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_o | 74.85 | % |
| DRY DENSITY | γ_d | 122.69 | pcf |
| WET DENSITY | γ | 134.86 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.51 | cm |
| SPECIMEN HEIGHT | H_0 | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE



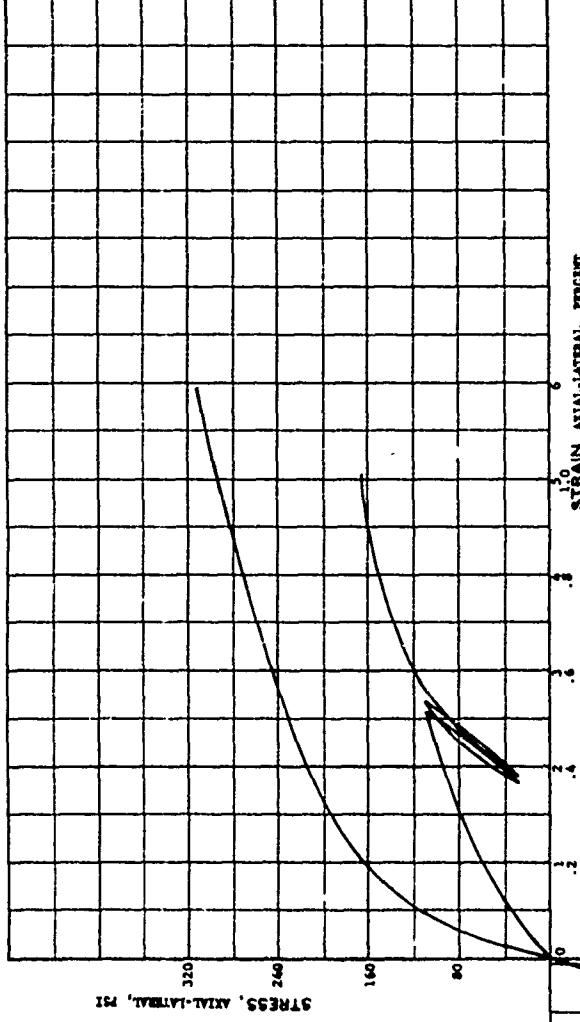
HYDROSTATIC PRESSURE, P, PSI

58

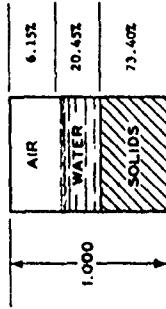
| | |
|----------------------------------|---------------------------------------|
| PROJECT | Georgia Institute of Technology B-502 |
| Contract No. | DACAR-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 132 |
| DEPTH EL | DATE |
| LL 27 | PL 15 |
| | P1 12 |
| DESCRIPTION McCorckle Ranch Sand | |
| Triaxial-Cyclic Shear @ 35% | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

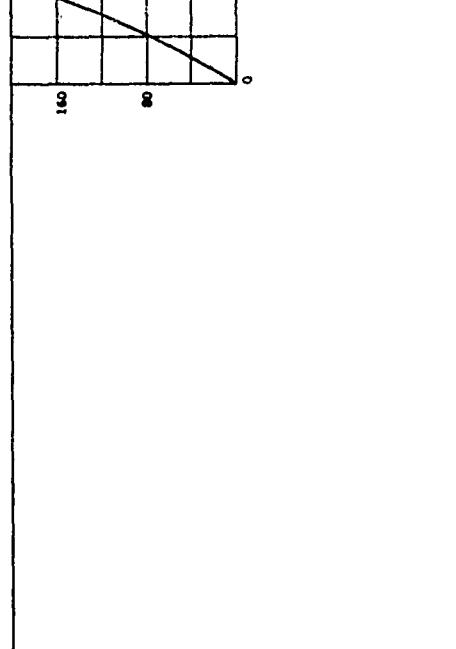
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.44 % |
| VOID RATIO | e ₀ | 0.36 |
| SATURATION | S ₀ | 76.89 % |
| DRY DENSITY | γ_d | 122.28 PCF |
| WET DENSITY | γ | 135.05 PCF |
| SPECIFIC GRAVITY | δ_s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.65 CM |



HYDROSTATIC COMPRESSION PHASE

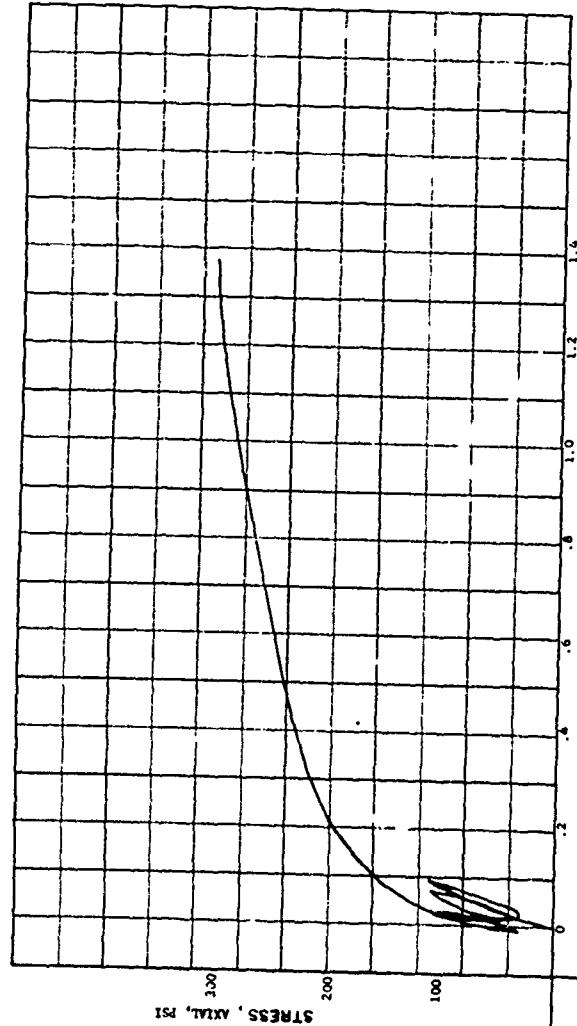


HYDROSTATIC PRESSURE, P, PSI

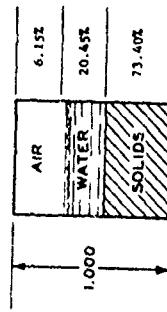


| | |
|--|----------------|
| PROJECT Georgia Institute of Technology B-492 | |
| Contract No. DACA39-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 137 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 |
| | P1 12 |
| DESCRIPTION Incremental Axial Load | |
| Triaxial Cyclic @ 3% Lateral Pressure, 200 psi | |

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.44 % |
| VOID RATIO | e_0 | 0.36 |
| SATURATION | S_0 | 76.89 % |
| DRY DENSITY | γ_d | 122.28pcf |
| WET DENSITY | γ | 135.0*pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | .50 cm |
| SPECIMEN HEIGHT | H_o | 7.65 cm |



HYDROSTATIC COMPRESSION PHASE



AHYDROSTATIC PRESSURE, P, PSI

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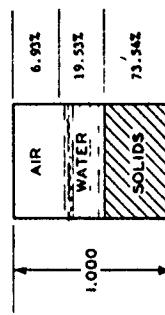
| | |
|---|----------------|
| PROJECT Georgia Institute of Technology B-603 | |
| Contract No. DACA9-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 137 |
| DEPTH | DATE |
| EL | |
| LL | 21 |
| PL | 15 |
| | P1 12 |
| DESCRIPTION McCormick Ranch Sand | |
| TRIAXIAL STRESS, 3.3% | |
| Lateral Pressure, 200 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 9.34 % |
| VOID RATIO | e ₀ | 0.36 |
| SATURATION | S ₀ | 73.80 % |
| DRY DENSITY | γ_d | 123.33 PCF |
| WET DENSITY | γ' | 134.71 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.64 CM |



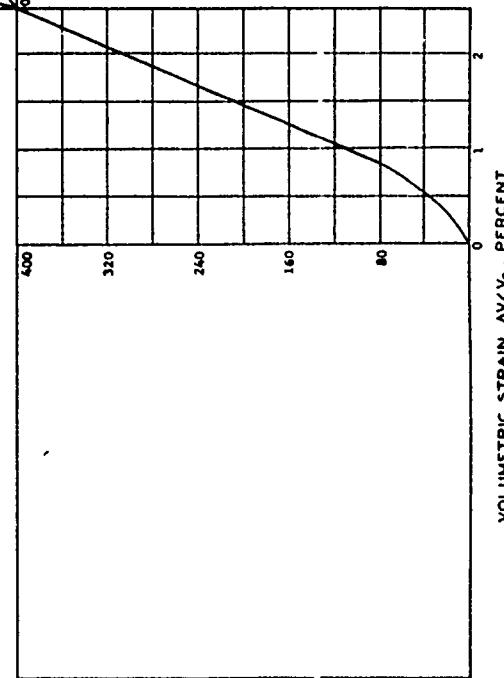
HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

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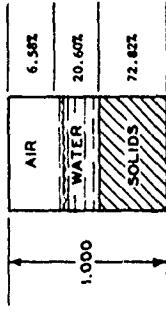
STRAIN: ε - ε₀, percent



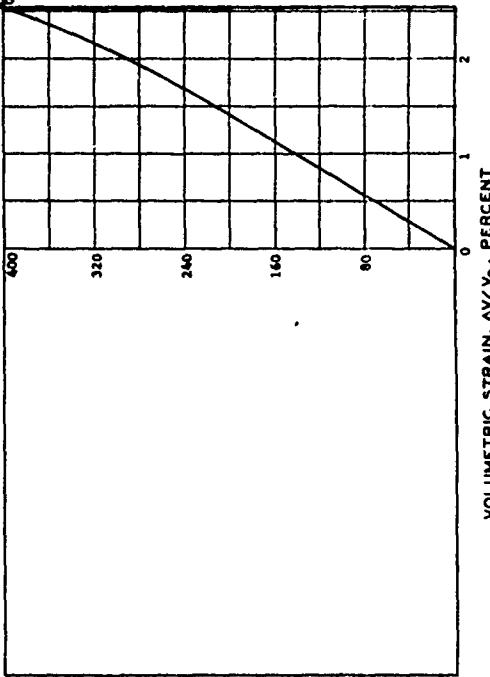
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | |
|----------------------------------|-----------------|
| PROJECT | Ge. Tech 3-622. |
| Contract No. DMAA39-67-C-0031 | |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. 133 |
| DEPTH | DATE |
| EL. | |
| LL. | PL 15 PL 12 |
| DESCRIPTION McCormick Ranch Sand | |
| Triaxial-Cyclic shear Q-355 | |

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.59 % |
| VOID RATIO | e ₀ | 0.37 |
| SATURATION | S ₀ | 75.80 % |
| DRY DENSITY | γ_d | 121.33 PCF |
| WET DENSITY | γ_w | 136.18 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.64 CM |

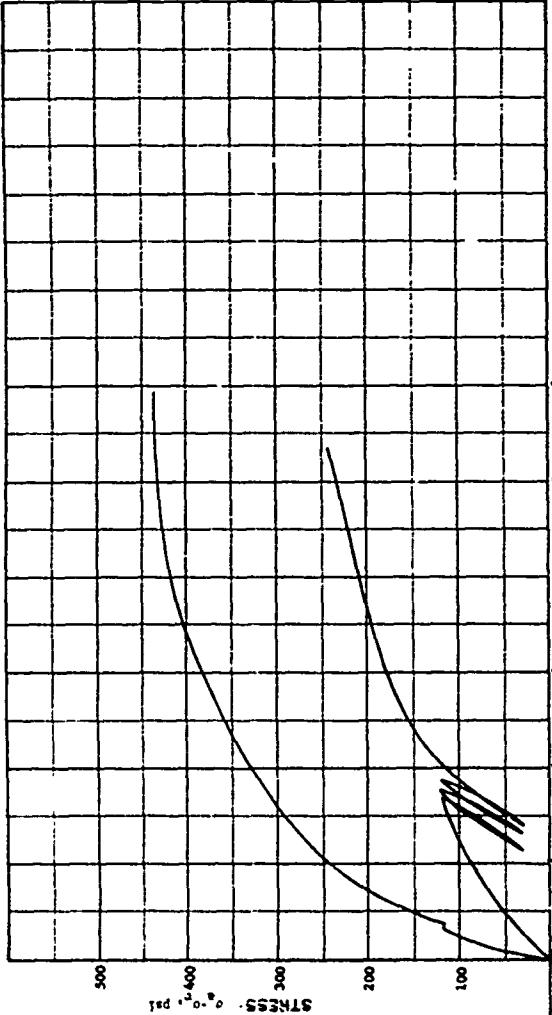


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

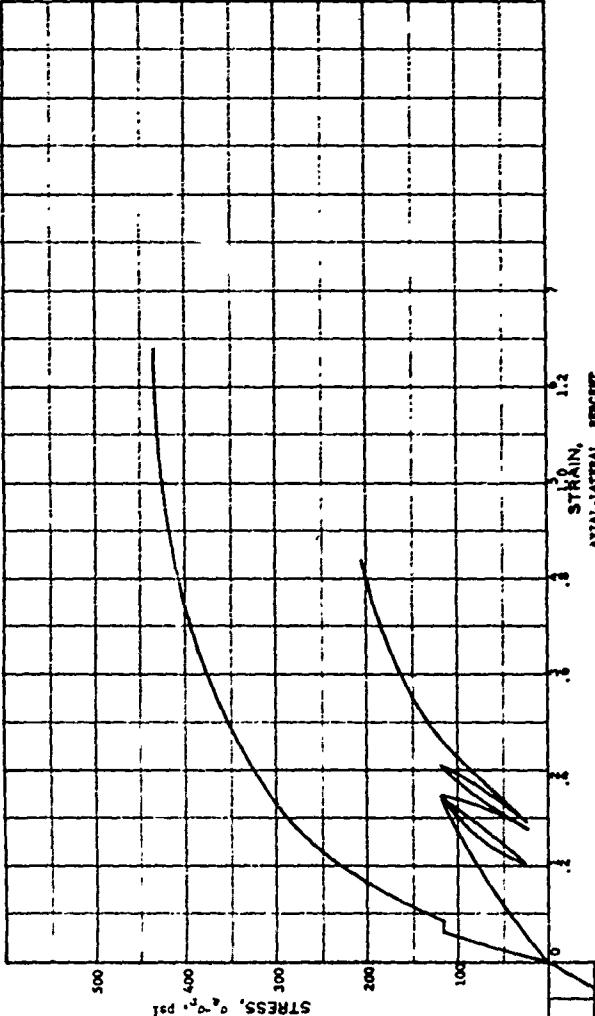
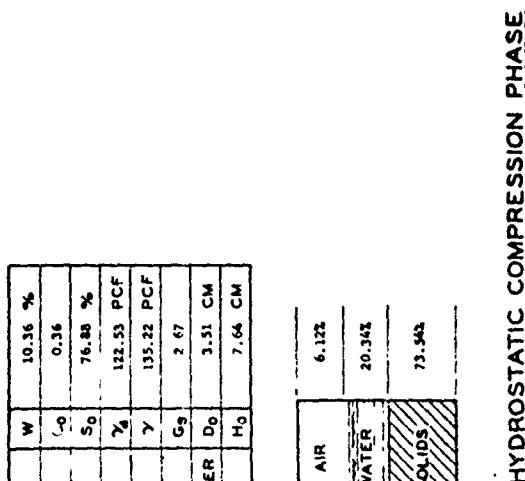
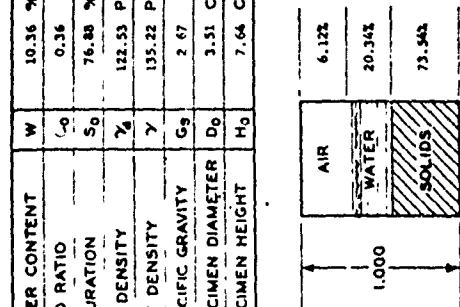
62



STRAIN:
Axial-Lateral, Percent

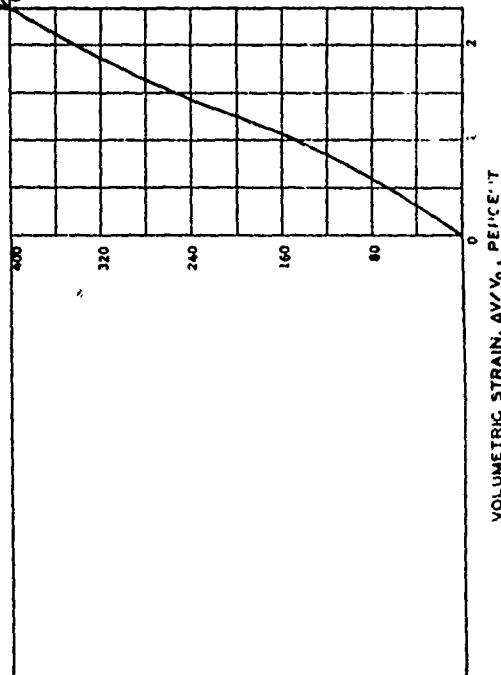
| | |
|--------------|-----------------------------|
| PROJECT | Geotech B-6021 |
| Contract No. | DACAS9-67-C-0031 |
| <hr/> | |
| AREA | |
| BORING NO. | SAMPLE NO. 136 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 PL 12 |
| <hr/> | |
| DESCRIPTION | McComick Ranch Sand |
| | Triaxial-Cyclic shear 0.35% |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 10.36 % |
| VOID RATIO | e _o | 0.36 |
| SATURATION | S _o | 76.88 % |
| DRY DENSITY | D _d | 132.53pcf |
| WET DENSITY | γ | 135.22pcf |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D _o | 3.51 cm |
| SPECIMEN HEIGHT | H _o | 7.64 cm |



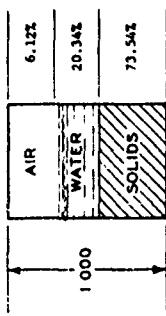
| | |
|--------------|------------------|
| PROJECT | Ge. Test 1-001 |
| Contract No. | DACAS9-67-C-0031 |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL. | |
| LL | |
| PL | |
| 19 | |
| PI | |
| 12 | |

DESCRIPTION: McConalik Ranch Sand
Triaxial-Cycle Shear Q-35%

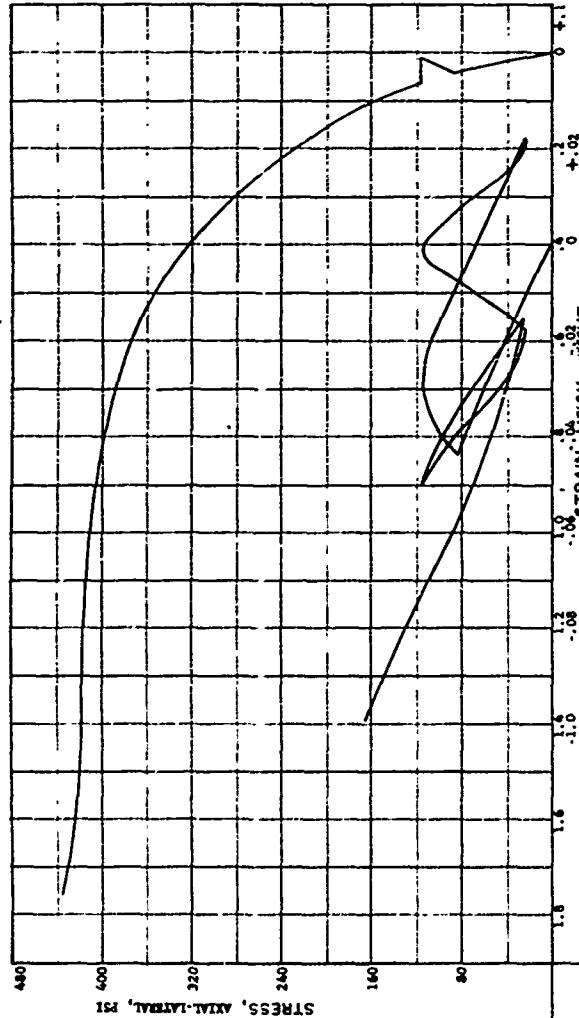


HYDROSTATIC PRESSURE, P_h, PSI

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.36 % |
| VOID RATIO | e_0 | 0.36 |
| SATURATION | S_o | 76.48 % |
| DRY DENSITY | γ_d | 122.53 PCF |
| WET DENSITY | γ' | 135.22 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.51 CM |
| SPECIMEN HEIGHT | H_o | 7.64 CM |



HYDROSTATIC COMPRESSION PHASE



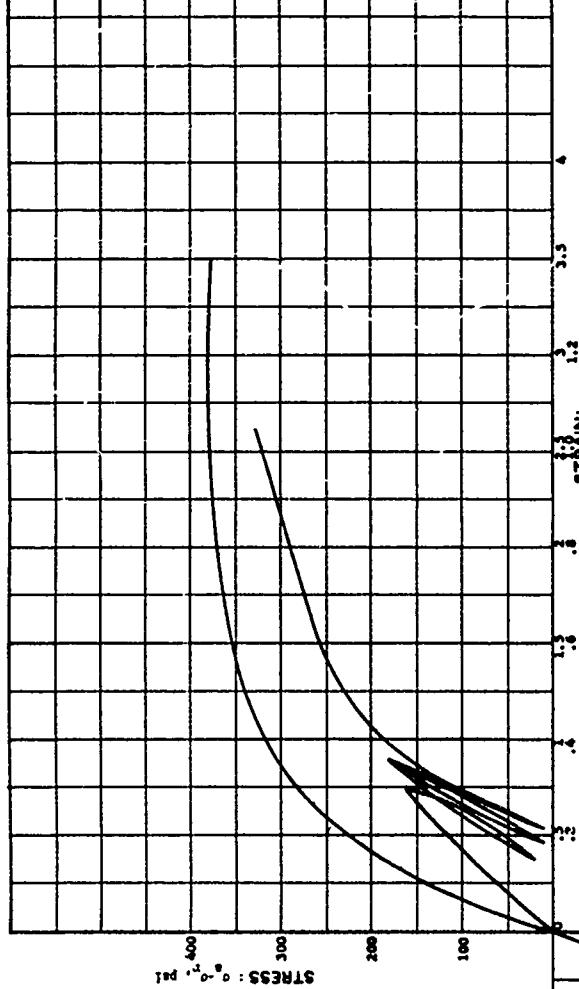
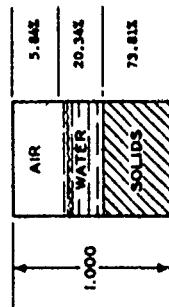
HYDROSTATIC PRESSURE, P, PSI

9

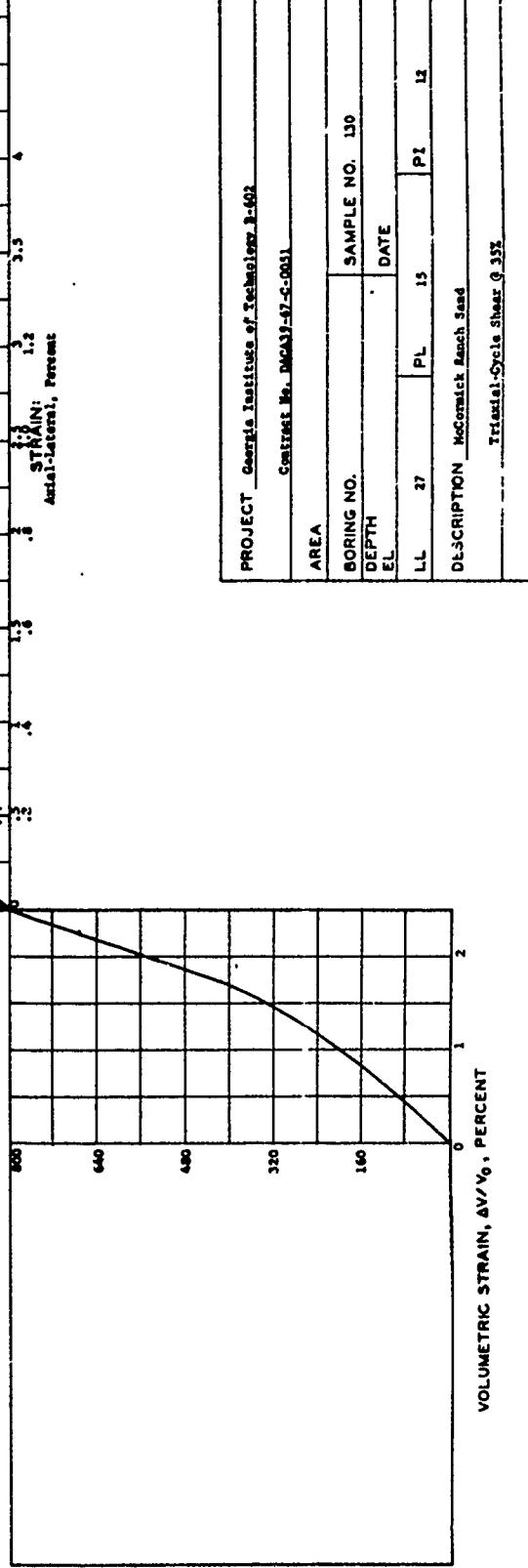
| | |
|--------------|-----------------|
| PROJECT | Ga Tech 8-602; |
| Contract No. | DCR19-67-00031 |
| AREA | |
| BORING NO. | SAMPLE NO. 137A |
| DEPTH | DATE |
| EL. | |
| LL. | PL |
| 27 | 15 |
| | P1 |
| | 12 |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT
Triaxial-Cyclic shear, 3.3%

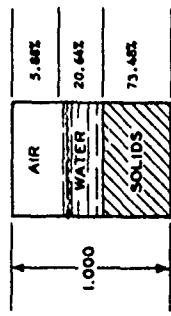
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.32 % |
| VOID RATIO | e _o | 0.35 |
| SATURATION | s _o | 77.88 % |
| DRY DENSITY | d _o | 122.97 PCF |
| WET DENSITY | y | 135.07 PCF |
| SPECIFIC GRAVITY | G _o | 2.67 |
| SPECIMEN DIAMETER | D _o | 3.53 CM |
| SPECIMEN HEIGHT | H _o | 7.47 CM |



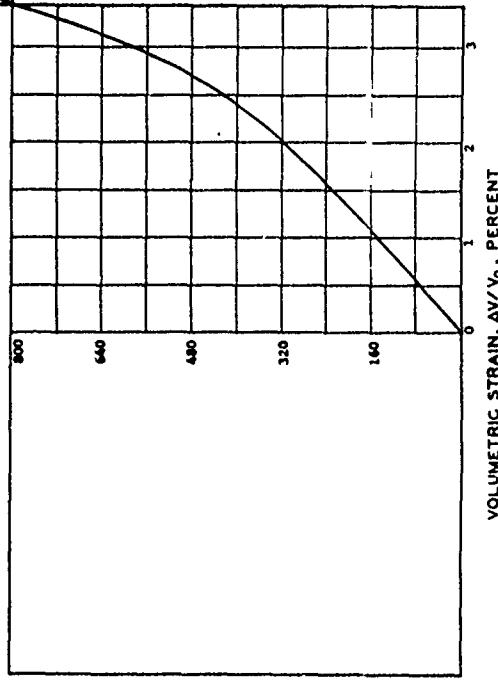
HYDROSTATIC COMPRESSION PHASE



| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.52 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_0 | 77.82 | % |
| DRY DENSITY | γ_d | 122.43 | pcf |
| WET DENSITY | γ' | 135.31 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.50 | cm |
| SPECIMEN HEIGHT | H_0 | 7.65 | cm |

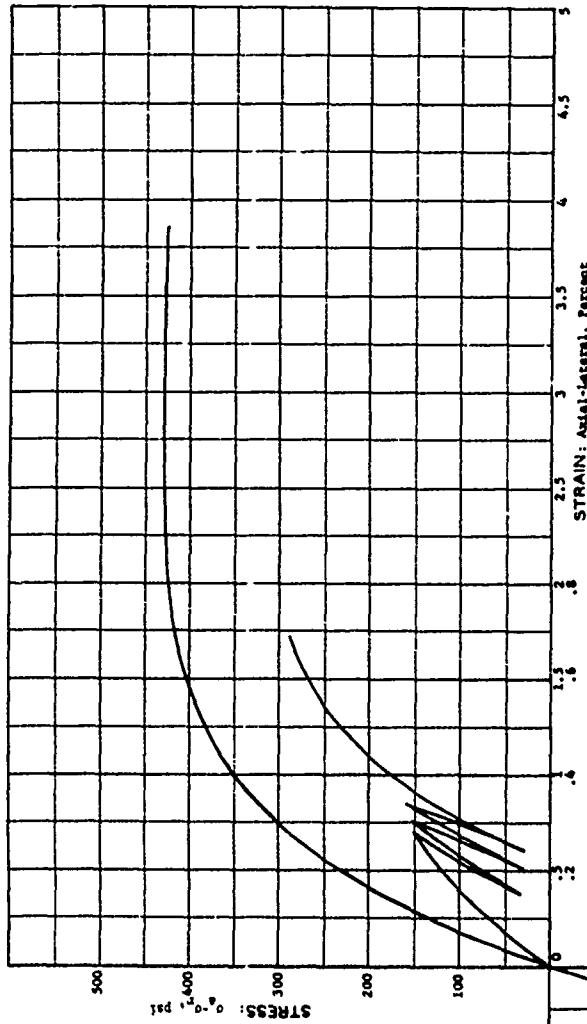


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P , PSI

69



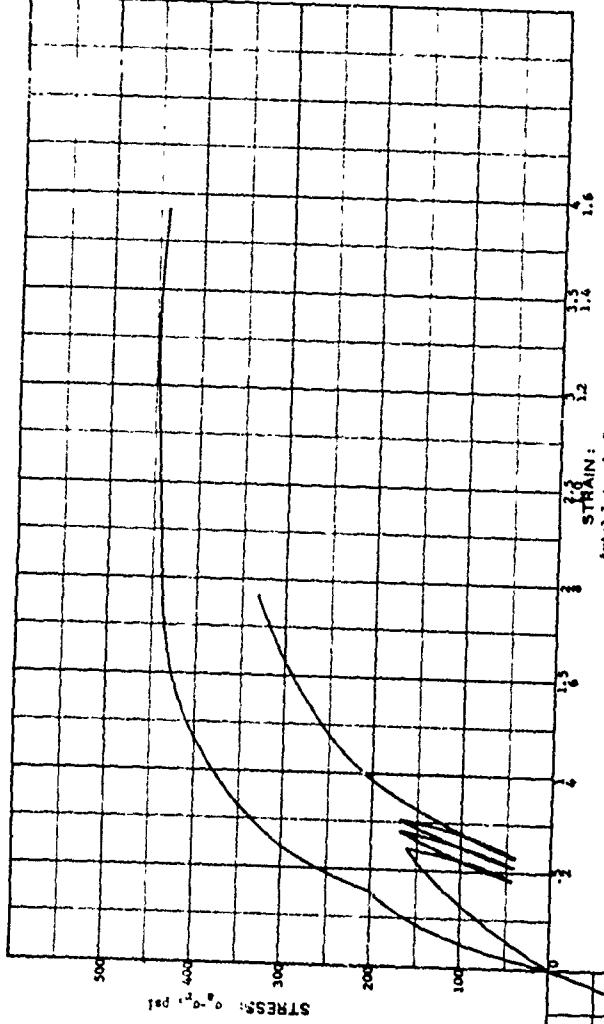
STRESS: $\sigma - \sigma_0$, PSI

| | |
|----------------------------------|---------------------------------------|
| PROJECT | Georgia Institute of Technology B-602 |
| Contract No. | DA-39-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 134 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 PI 12 |
| DESCRIPTION McConahie Ranch Sand | |
| Triaxial-Cycle Shear @ 35% | |

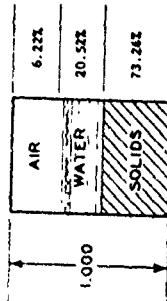
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.49 % |
| VOID RATIO | e ₀ | 0.16 |
| SATURATION | s ₀ | 76.73 % |
| DRY DENSITY | γ_d | 122.06 PCF |
| WET DENSITY | γ' | 134.86 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |

STRESS: 0 - 1000 psi

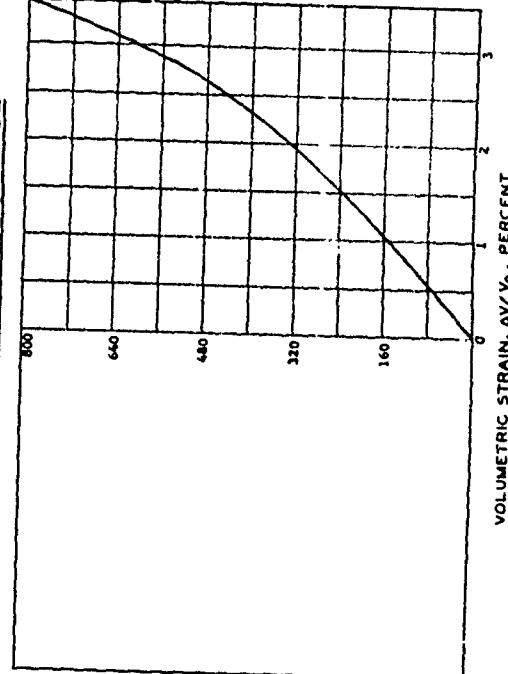


HYDROSTATIC COMPRESSION PHASE



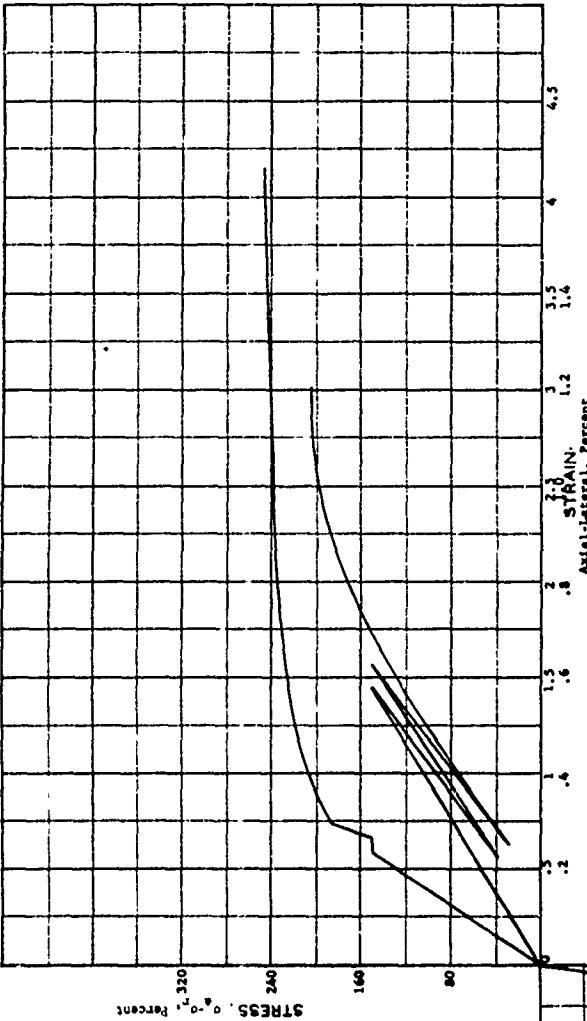
HYDROSTATIC PRESSURE, P, PSI

67



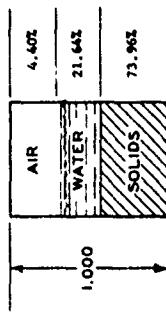
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | |
|----------------------------------|------------------|
| PROJECT | G4 Tech B-602 |
| Contract No. | DACAR9-67-C-0001 |
| AREA | |
| BORING NO. | SAMPLE NO. 135 |
| DEPTH | DATE |
| EL. | |
| LL | PL 15 |
| | PI 12 |
| DESCRIPTION McCordick Ranch Sand | |
| Triaxial-Cyclic Shear @ 35% | |



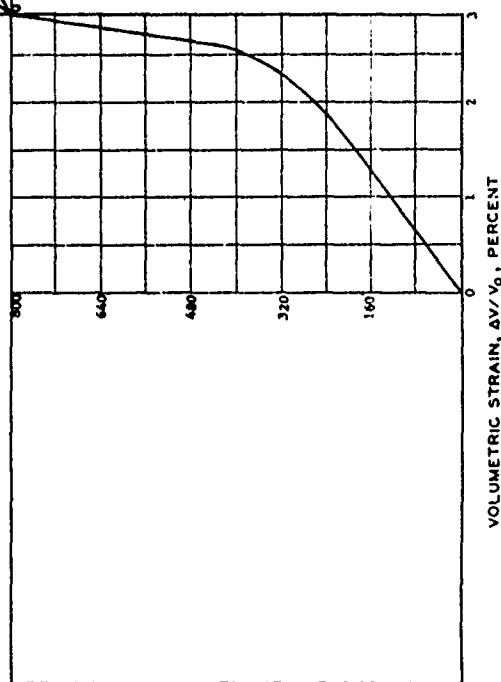
HYDROSTATIC COMPRESSION PHASE

| | | |
|-------------------------|------------|-----------|
| WATER CONTENT | W | 10.96 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 93.10 % |
| DRY DENSITY | γ_d | 123.21pcf |
| WET DENSITY | γ | 136.75pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER D_o | 3.50 cm | |
| SPECIMEN HEIGHT H_o | 7.52 cm | |



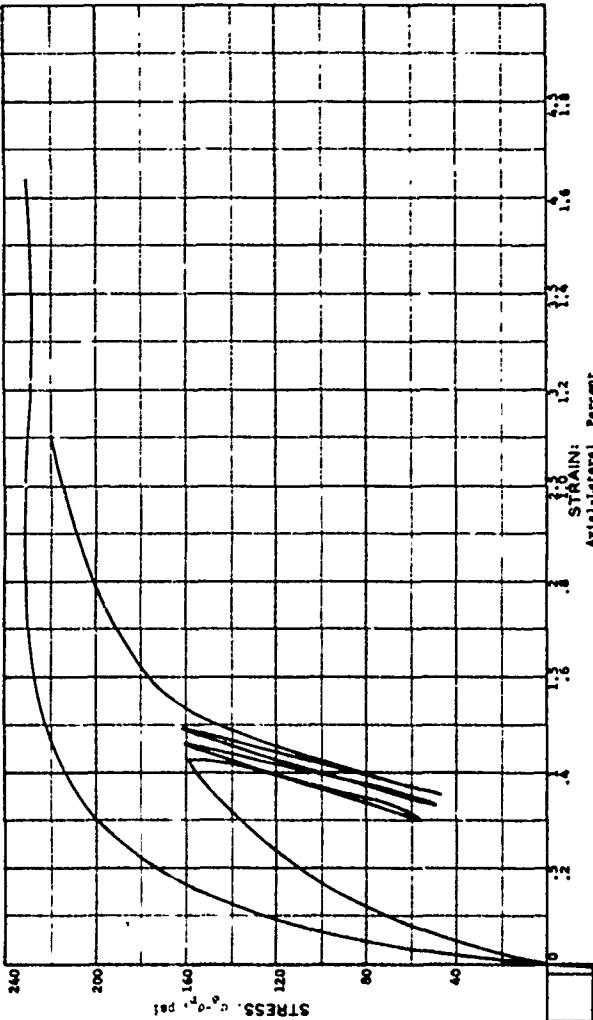
HYDROSTATIC PRESSURE, P, PSI

68

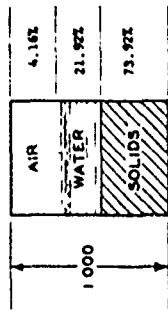


| | | | |
|---------------------------------|---------------------------------------|-----|----|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. | DOA39-67-C-0051 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 138 | | |
| DEPTH | DATE | | |
| EL. | 27 | PL. | 15 |
| LL | | P1 | 12 |
| DESCRIPTION McCollum Ranch Sand | | | |
| Triaxial-Cycle Shear @ 35% | | | |

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.11 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 94.04 % |
| DRY DENSITY | γ_d | 123.15 PCF |
| WET DENSITY | γ | 136.83 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 5.50 CM |
| SPECIMEN HEIGHT | H_o | 7.53 CM |

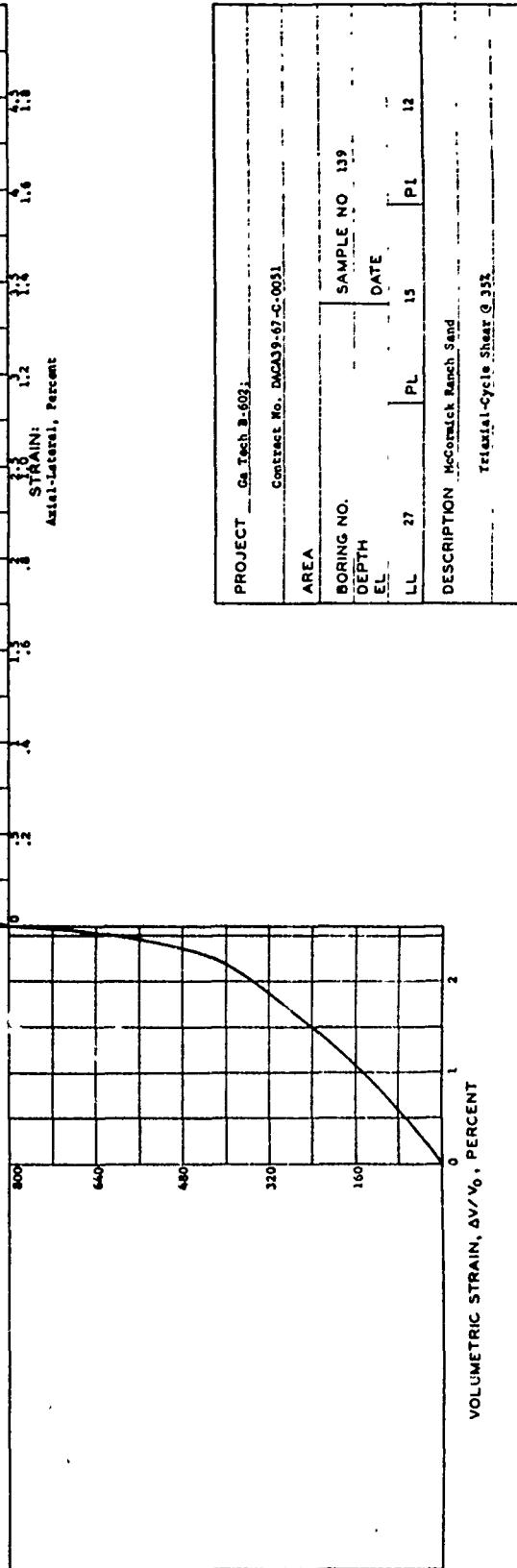


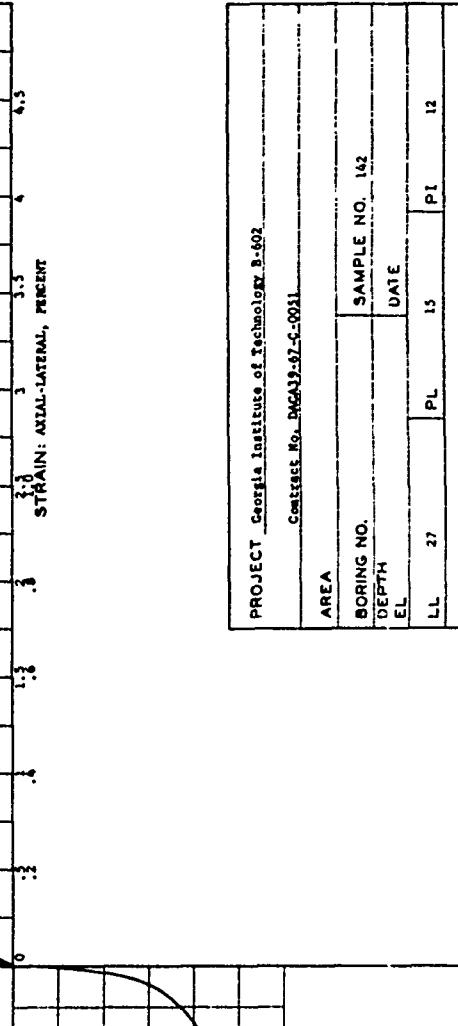
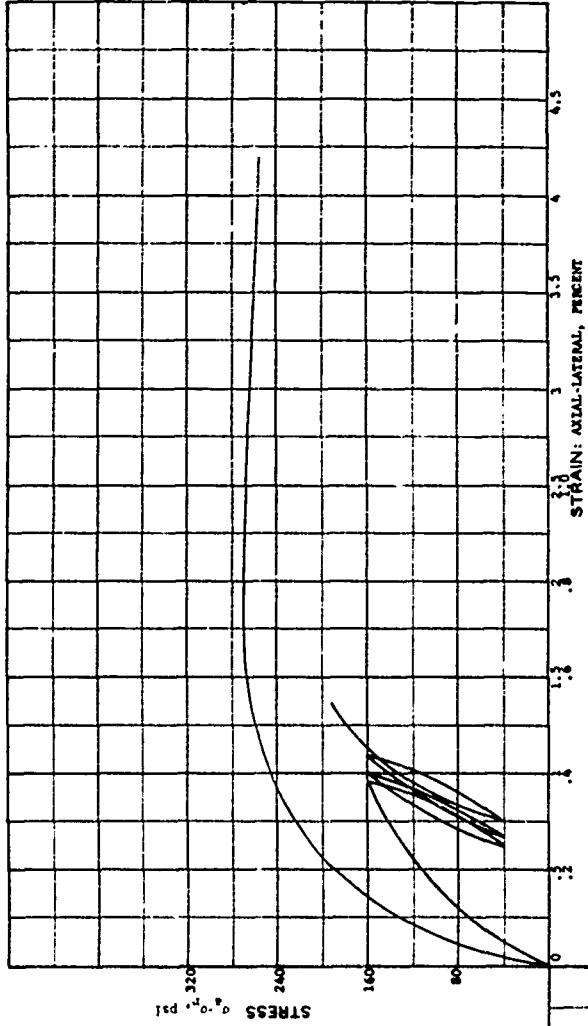
HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P , PSI

69

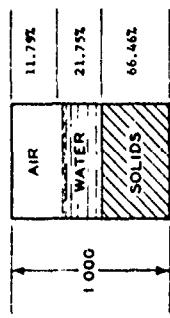




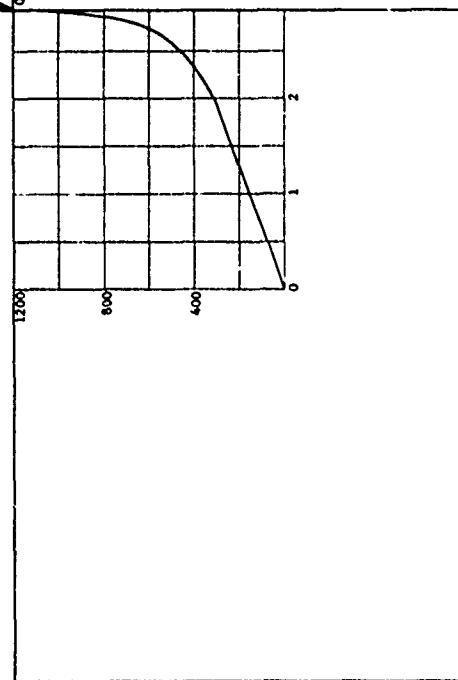
| | |
|---|----------------|
| PROJECT Georgia Institute of Technology B-902 | |
| Contract No. FMSA-39-07-C-0011 | |
| AREA | |
| DORING NO. | SAMPLE NO. 162 |
| DEPTH EL | DATE |
| L.L. 27 | PL 15 P1 12 |

DESCRIPTION McCordick Branch Sand
Triaxial-Cycle Shear Q-35%

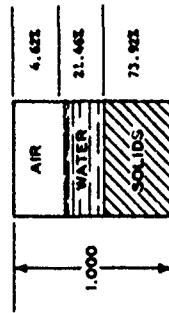
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.26 % |
| VOID RATIO | e ₀ | 0.50 |
| SATURATION | s ₀ | 64.85 % |
| DRY DENSITY | γ_d | 110.73 PCF |
| WET DENSITY | γ | 124.30 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.55 CM |



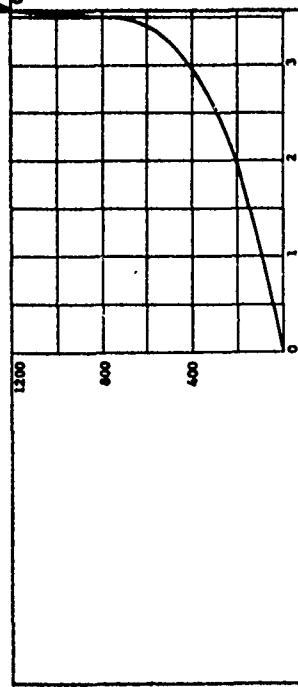
HYDROSTATIC COMPRESSION PHASE



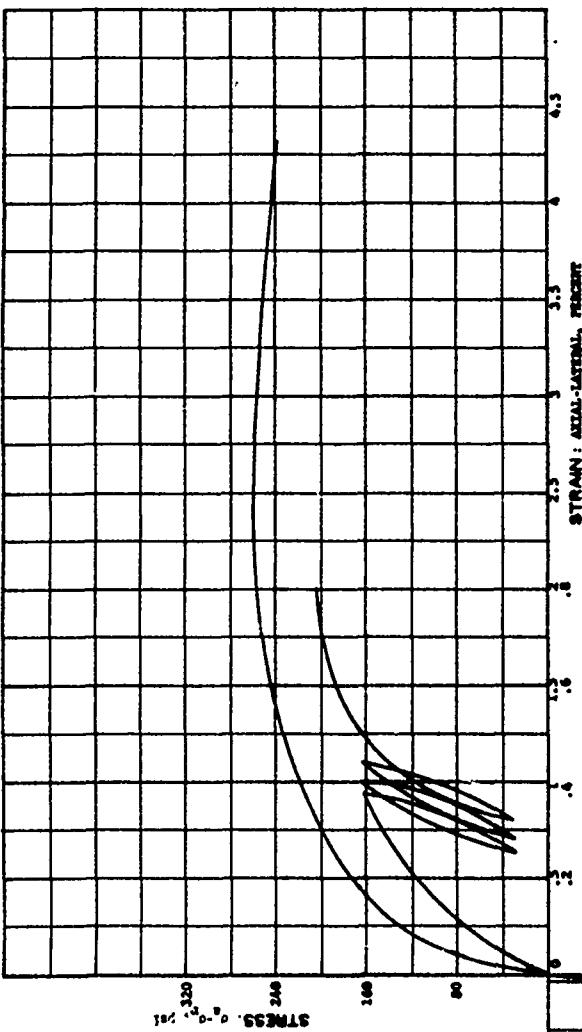
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.67 % |
| VOID RATIO | e _o | 0.35 |
| SATURATION | S _o | 82.29 % |
| DRY DENSITY | γ_d | 123.16 PCF |
| WET DENSITY | γ | 136.55 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D _o | = 40 CM |
| SPECIMEN HEIGHT | H _o | 7.54 C.I.D |



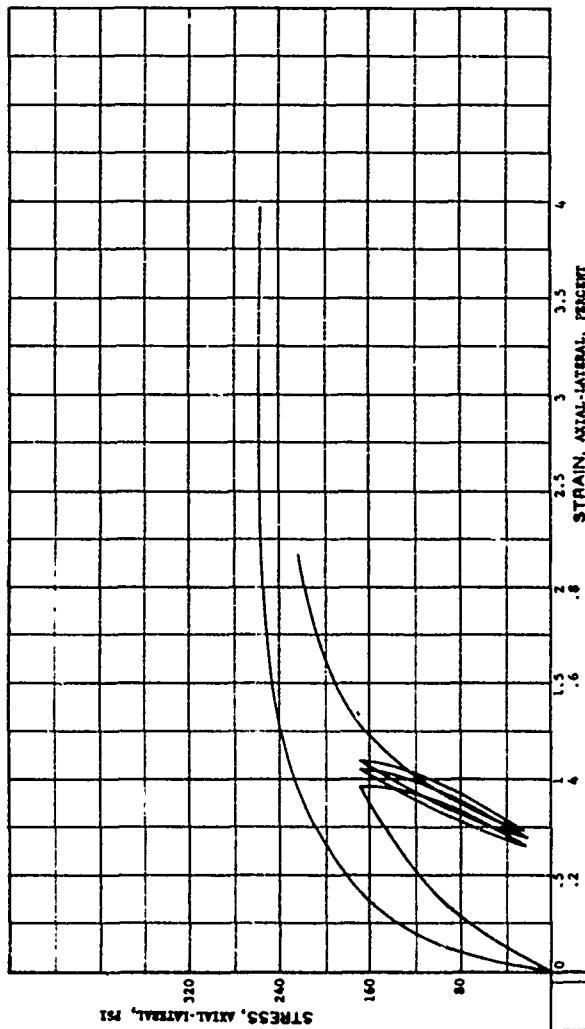
HYDROSTATIC COMPRESSION PHASE



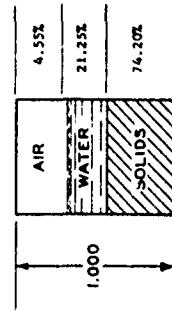
HYDROSTATIC PRESSURE, P, PSI



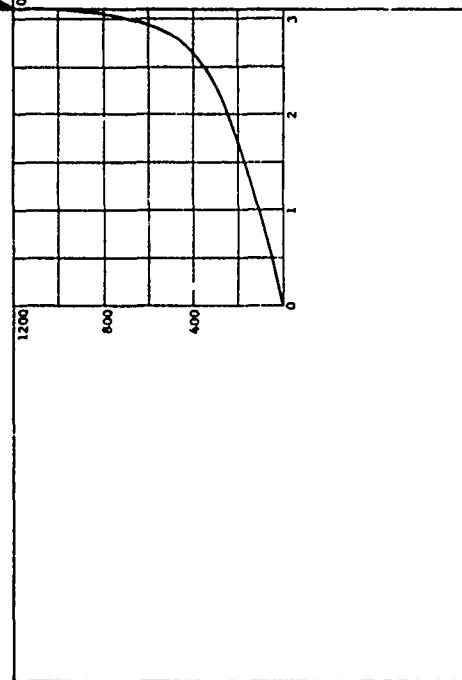
| | | |
|----------------------------|---------------------------------------|----|
| PROJECT | Georgia Institute of Technology R-602 | |
| Contract No. | DASG-67-0-0001 | |
| AREA | | |
| BORING NO. | SAMPLE NO. 103 | |
| DEPTH EL. | DATE | |
| LL | PL | L1 |
| | PI | 12 |
| DESCRIPTION | | |
| Hardenick Ranch Sand | | |
| Initial Cycle Stress 0.25% | | |
| | | |



| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.72 % |
| VOID RATIO | e_0 | 0.3 |
| SATURATION | S_c | 82.35 % |
| DRY DENSITY | γ_d | 123.62pcf |
| WET DENSITY | γ | 136.86pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_0 | 3.50 cm |
| SPECIMEN HEIGHT | H_0 | 7.53 cm |

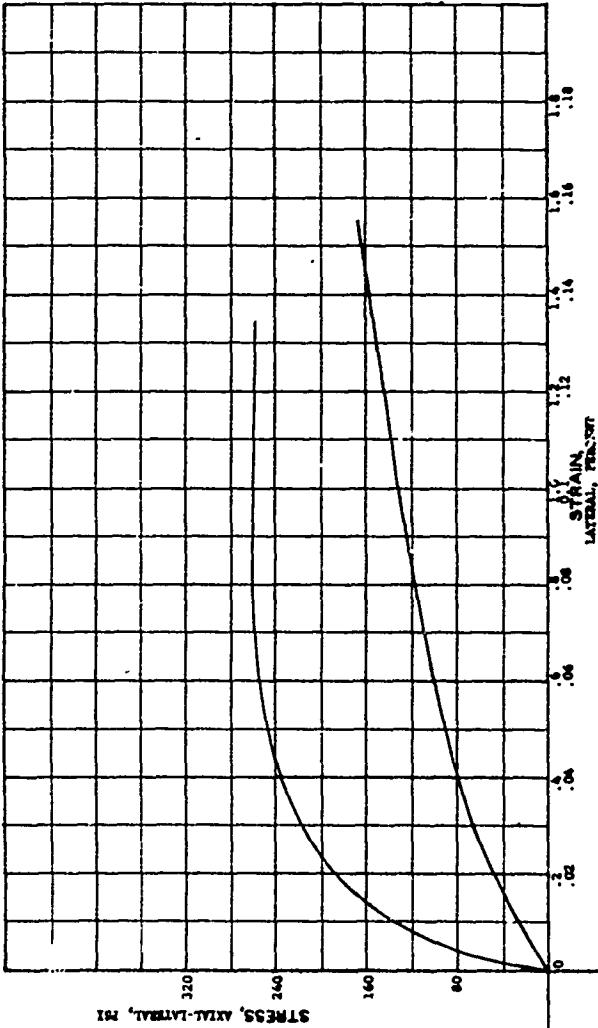


HYDROSTATIC COMPRESSION PHASE

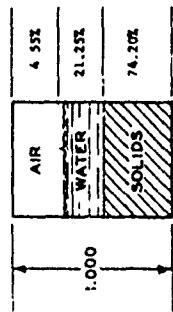


| | | |
|--------------|--|----|
| PROJECT | Georgia Institute of Technology, B-502 | |
| Contract No. | DACA39-67-C-0031 | |
| <hr/> | | |
| AREA | | |
| BORING NO | SAMPLE NO. 149 | |
| DEPTH EL | DATE | |
| LL | PL | LS |
| | PI | 12 |

DESCRIPTION: McGinnick Beach Sand
Triaxial Cyclic @ 3%
Lateral Pressure, 1200 psi



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

73

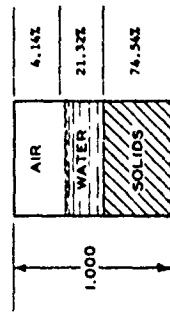
| PROJECT | Georgia Institute of Technology R-602 | | |
|--------------|---------------------------------------|------|----|
| Contract No. | DMPA39-67-C-0031 | | |
| | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | DATE | |
| DEPTH EL. | 149 | | |
| LL | PL | 15 | P1 |
| | | | 12 |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

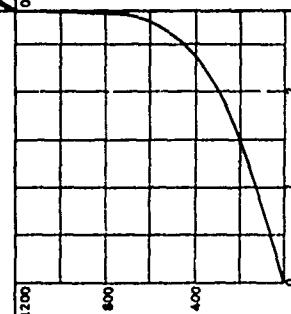
Triaxial Cyclic @ 35%

Lateral Pressure, 1200 psi

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.71 | % |
| VOID RATIO | e_0 | 0.34 | |
| SATURATION | S_0 | 83.75 | % |
| DRY DENSITY | γ_d | 124.19 | pcf |
| WET DENSITY | γ_w | 137.50 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.50 | cm |
| SPECIMEN HEIGHT | H_0 | 7.56 | cm |

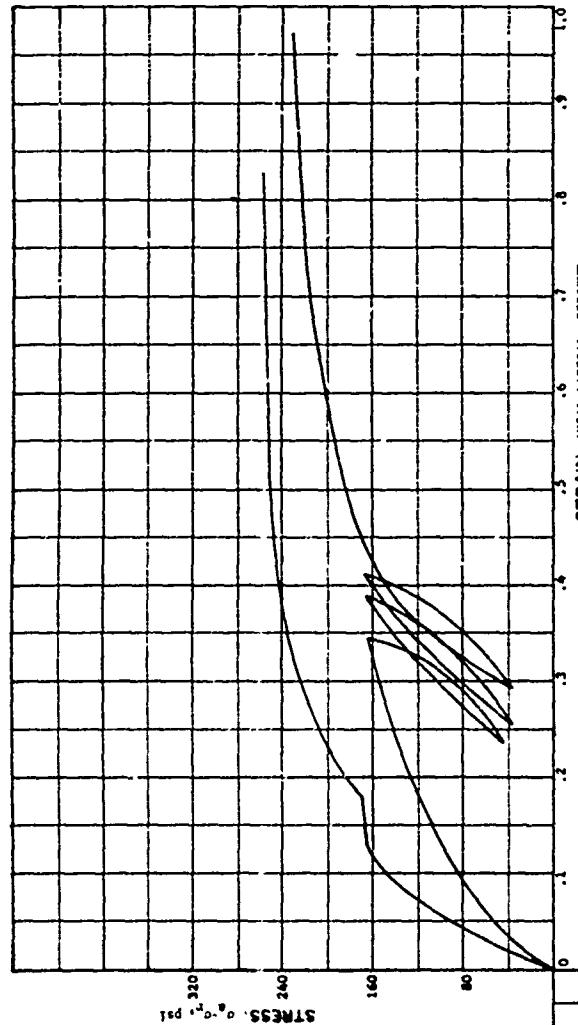


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

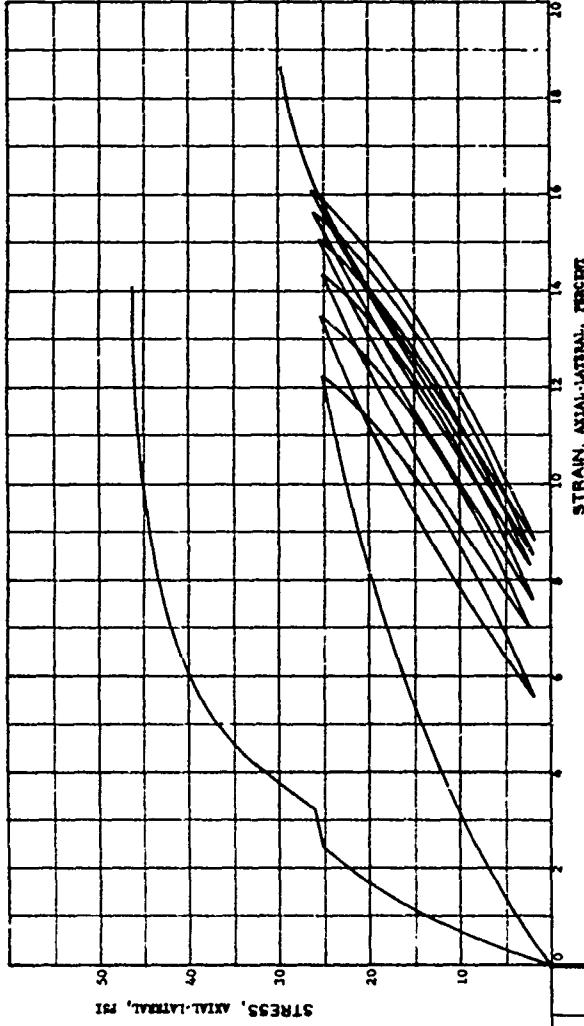
74



| | | | | | |
|---|----------------|------|----|----|----|
| PROJECT: Georgia Institute of Technology, B-692 | | | | | |
| Contract No. DACA39-67-C-0051 | | | | | |
| AREA | SAMPLE NO. 130 | | | | |
| | DEPTH EL. | DATE | | | |
| LL | 27 | PL | 15 | PL | 12 |
| DESCRIPTION: McCormick Branch sand | | | | | |
| Triaxial-Cyclic Shear Q-25% | | | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.53 % |
| VOID RATIO | e _o | 0.36 |
| SATURATION | S _o | 82.75 % |
| DRY DENSITY | γ _d | 126.35 PCF |
| WET DENSITY | γ | 137.44 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D _o | 3.56 CM |
| SPECIMEN HEIGHT | H _o | 7.53 CM |

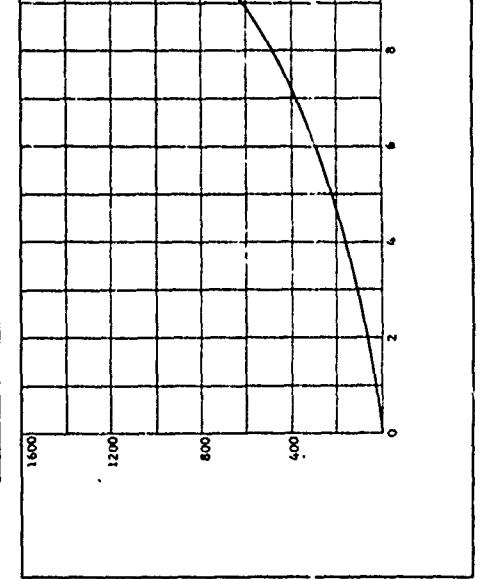


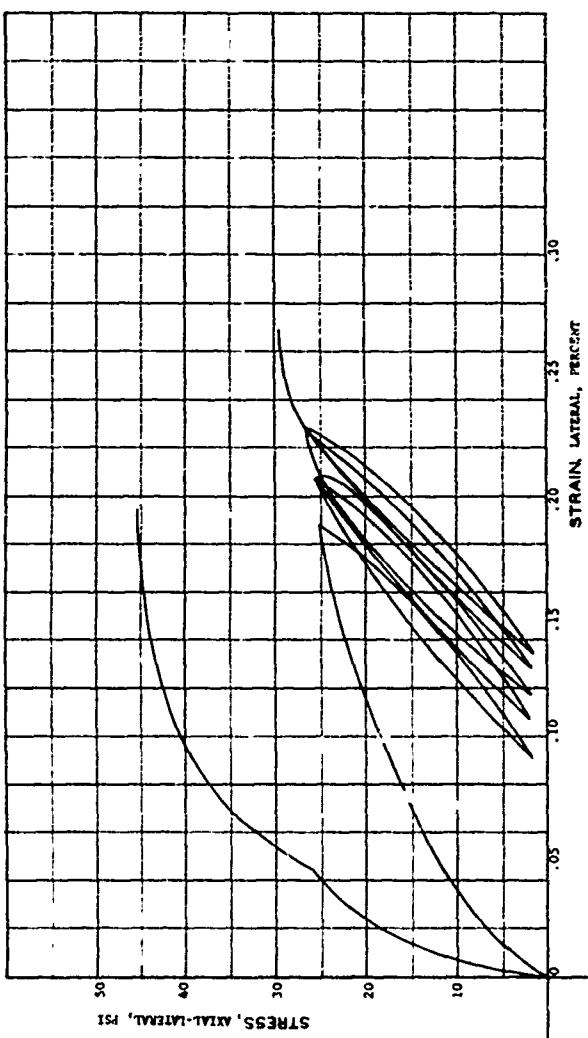
| | |
|--------------|------------------------------------|
| PROJECT | Geotechnical Test Laboratory 1-502 |
| Contract No. | DAC39-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 100 |
| DEPTH | DATE |
| EL. | |
| LL. | PL |
| | 15 |
| | P1 |
| | 12 |

DESCRIPTION McCormick Ranch Sand

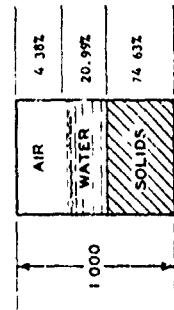
Triaxial Cyclic @ 3%

Lateral Pressure, 200 psi





| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.53 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_0 | 62.75 | % |
| DRY DENSITY | γ_d | 124.35 | pcf |
| WET DENSITY | γ_w | 137.44 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.56 | cm |
| SPECIMEN HEIGHT | H_o | 7.53 | cm |



HYDROSTATIC COMPRESSION PHASE

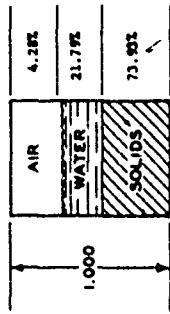
HYDROSTATIC PRESSURE, P, PSI

76

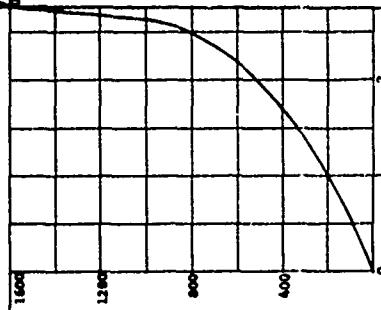
| | |
|---|-------------------------------|
| PROJECT Georgia Institute of Technology B-602 | Contract No. DACA39-93-C-0031 |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. 100 |
| DEPTH EL | DATE |
| LL 27 | P _L 15 |
| | P ₁ 12 |
| DESCRIPTION MComet Ranch, Sand | |
| Triaxial Cyclic 0.35% | |
| Lateral Pressure, 200 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

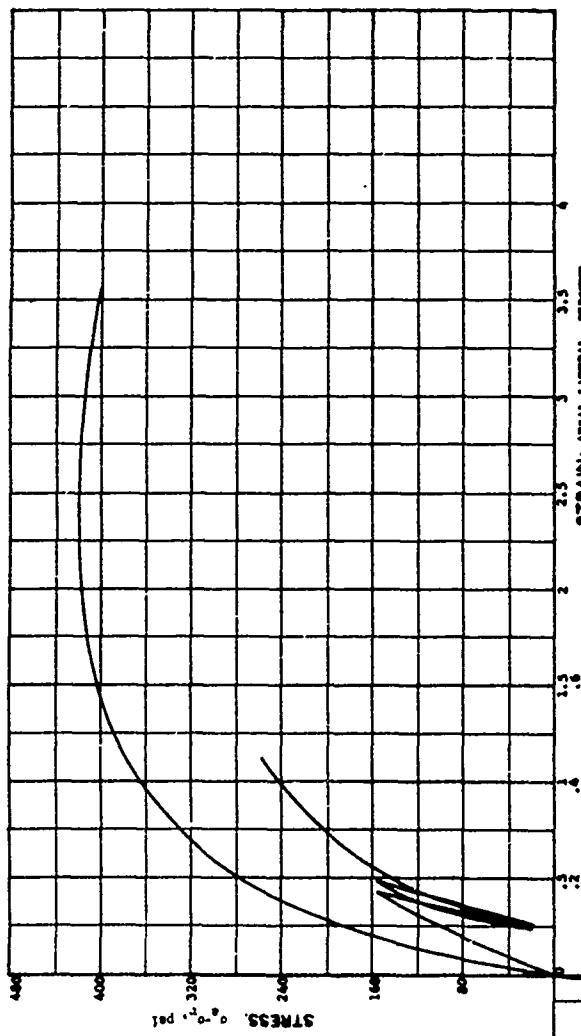
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.04 | % |
| VOID RATIO | e ₀ | 0.35 | |
| SATURATION | s ₀ | 63.58 | % |
| DRY DENSITY | γ_d | 123.17 | pcf |
| WET DENSITY | γ' | 136.77 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.51 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.44 | cm |



HYDROSTATIC COMPRESSION PHASE



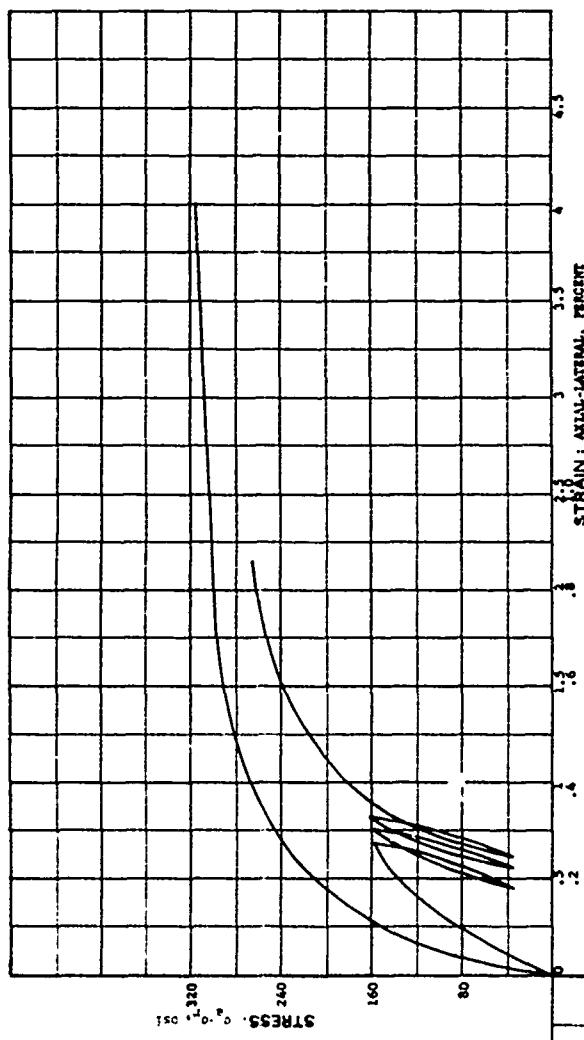
HYDROSTATIC PRESSURE, P, PSI



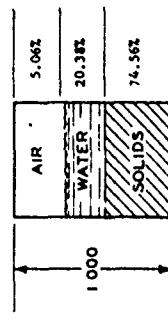
STRESS, σ_0 , psi
STRAIN: AXIAL-LATERAL, PERCENT

| | |
|---|-----------------------------|
| PROJECT Georgia Institute of Technology 3-602 | |
| Contract No. DACA19-67-C-0031 | |
| AREA | SAMPLE NO. 125 |
| BORING NO. | DATE |
| DEPTH EL. | |
| LL 27 | PL 15 |
| | P _L 12 |
| DESCRIPTION | McGinnis Ranch Soil |
| | Triaxial-Cyclic Shear G-352 |

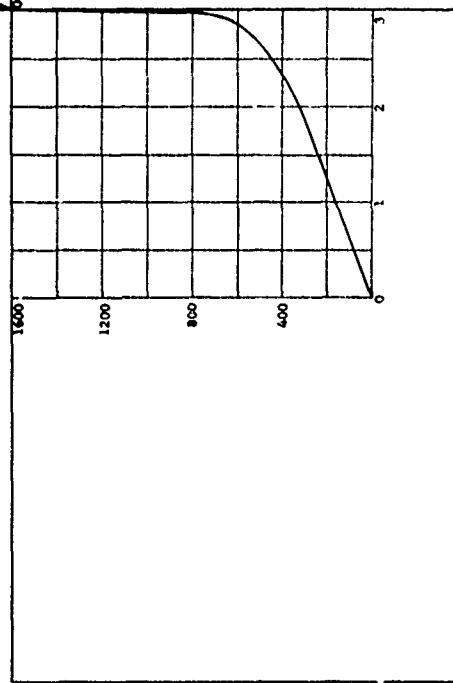
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.24 | % |
| VOID RATIO | e_0 | 0.34 | |
| SATURATION | S_o | 80.11 | % |
| DRY DENSITY | γ_d | 126.23 | pcf |
| WET DENS. "Y" | γ | 136.94 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.55 | cm |

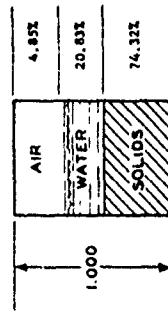
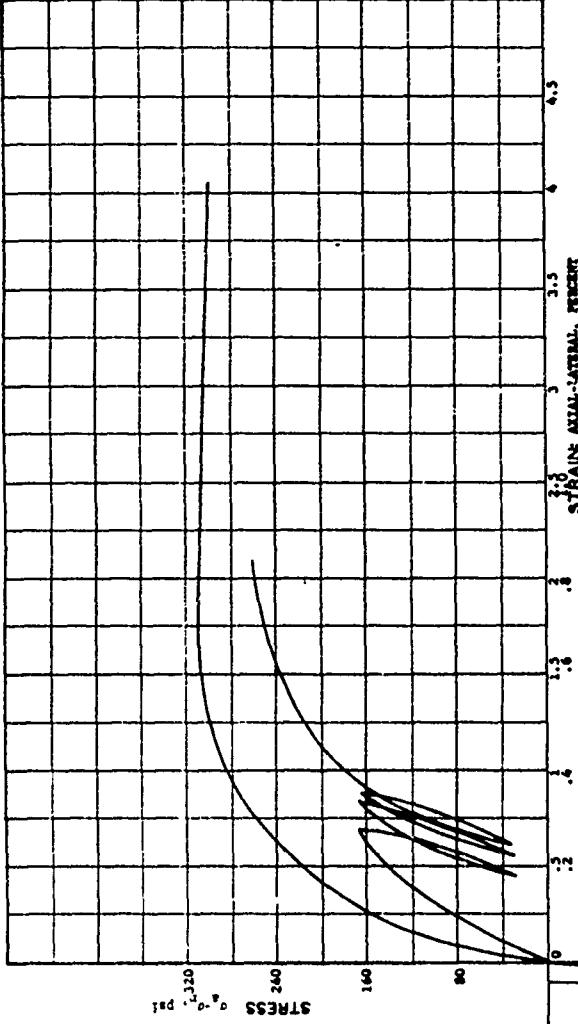


HYDROSTATIC COMPRESSION PHASE

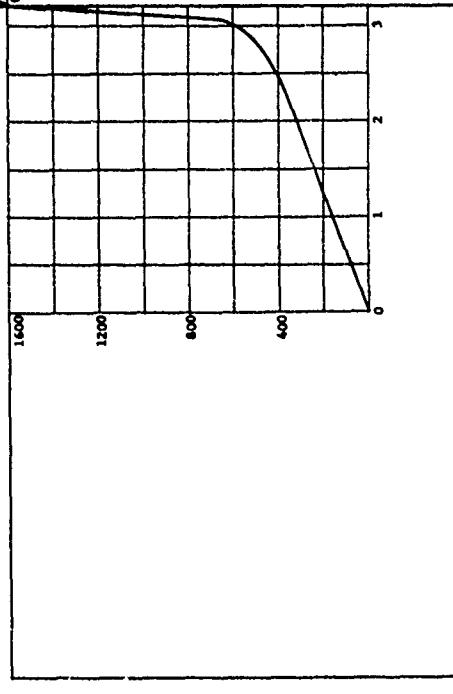


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|---|----------------|
| PROJECT Georgia Institute of Technology 8-402 | |
| Contract No. DACA19-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 192 |
| DEPTH EL | DATE |
| LL 27 | PL 15 |
| | PI 12 |
| DESCRIPTION McGooldrick Ranch Sand | |
| Triaxial-Cyclic Shear Q 358 | |

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.50 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 81.10 % |
| DRY DENSITY | γ_d | 121.82pcf |
| WET DENSITY | γ | 136.81pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 cm |
| SPECIMEN HEIGHT | H_o | 7.53 cm |

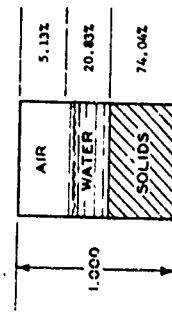
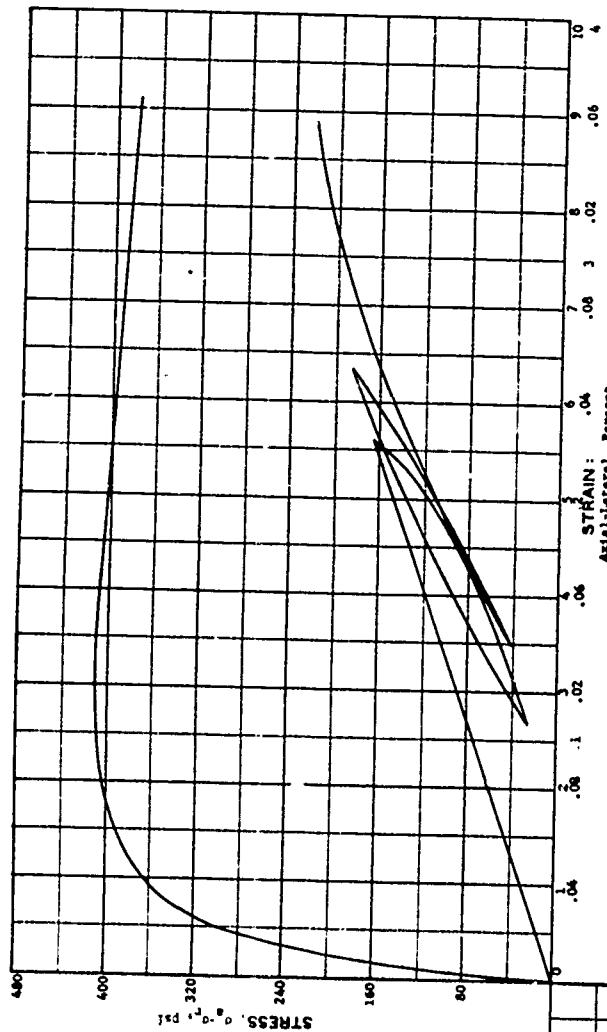


HYDROSTATIC COMPRESSION PHASE

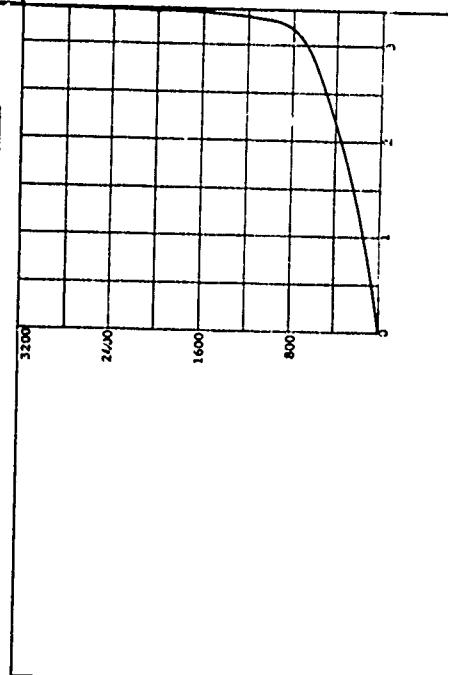


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|------------------------------------|---------------------------------------|------|
| PROJECT | Georgia Institute of Technology B-402 | |
| Contract No. | DMC139-67-C-0031 | |
| AREA | | |
| BORING NO. | SAMPLE NO. | DATE |
| DEPTH | | |
| EL | | |
| LL | PL | P1 |
| 27 | 15 | 12 |
| DESCRIPTION Motorcoach Ranch Stand | | |
| Trashed-Site Shear Q-35% | | |

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.53 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 80.22 % |
| DRY DENSITY | γ_d | 123.35 PCF |
| WET DENSITY | γ_w | 136.35 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.51 CM |
| SPECIMEN HEIGHT | H_o | 7.46 CM |



HYDROSTATIC COMPRESSION PHASE



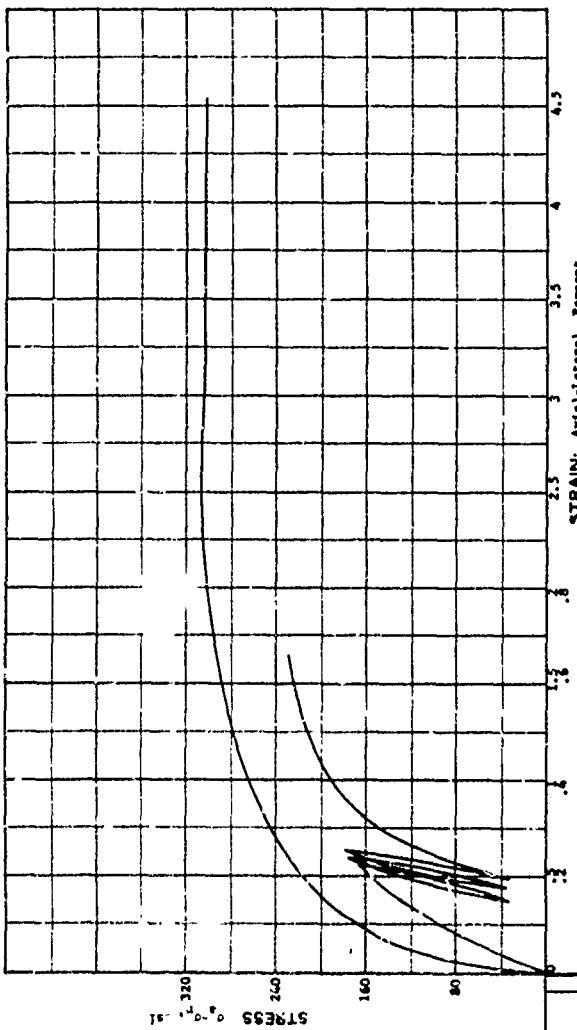
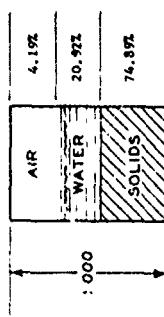
HYDROSTATIC PRESSURE, P, PSI

80

| | | |
|---|----------------|-------|
| PROJECT Georgia Institute of Technology 1-692 | | |
| Contract No. DACA39-67-C-0051 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. 129 | |
| EL. | DATE | |
| L.L. | PL 15 | PL 12 |
| DESCRIPTION McCordick Ranch Sand | | |
| Triaxial-Single Shear 0.35% | | |

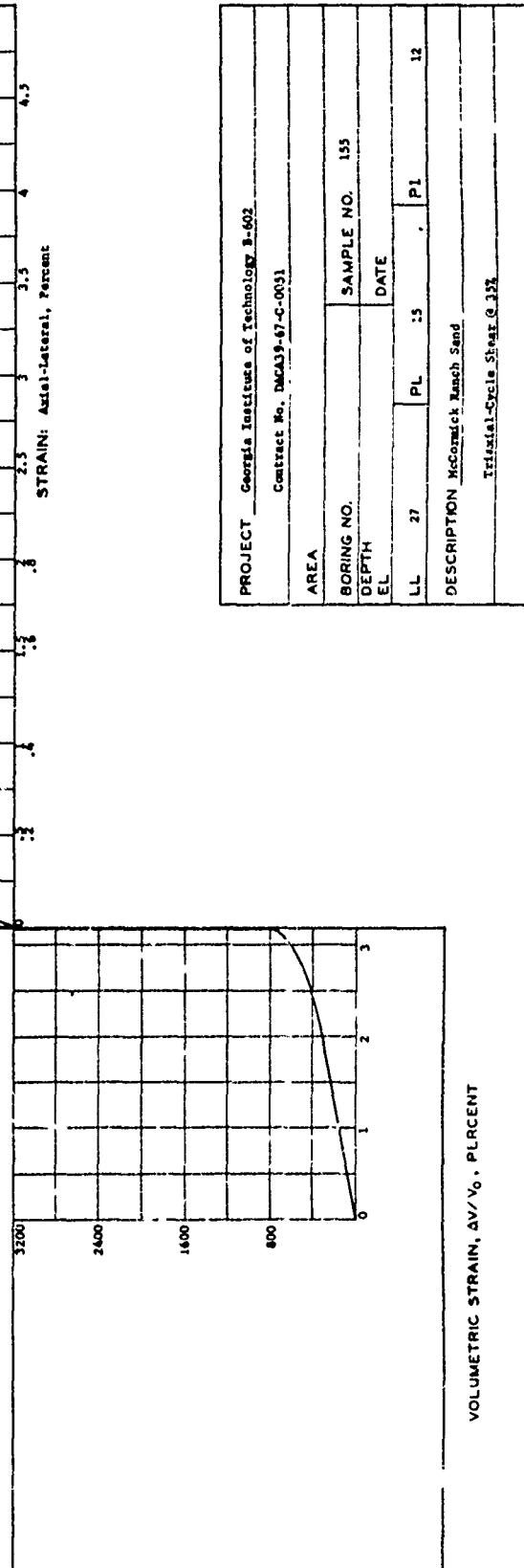
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 10.46 % |
| VOID RATIO | e _o | 0.26 |
| SATURATION | S _o | 83.33 % |
| DRY DENSITY | γ_d | 174.78pcf |
| WET DENSITY | γ_w | 137.83pcf |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D _o | 3.50 cm |
| SPECIMEN HEIGHT | H _o | 7 cm |

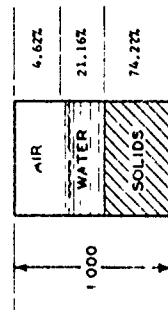


HYDROSTATIC PRESSURE, P, PSI

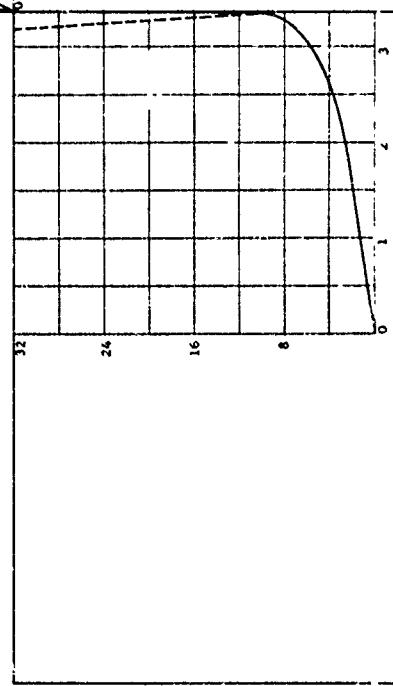
81



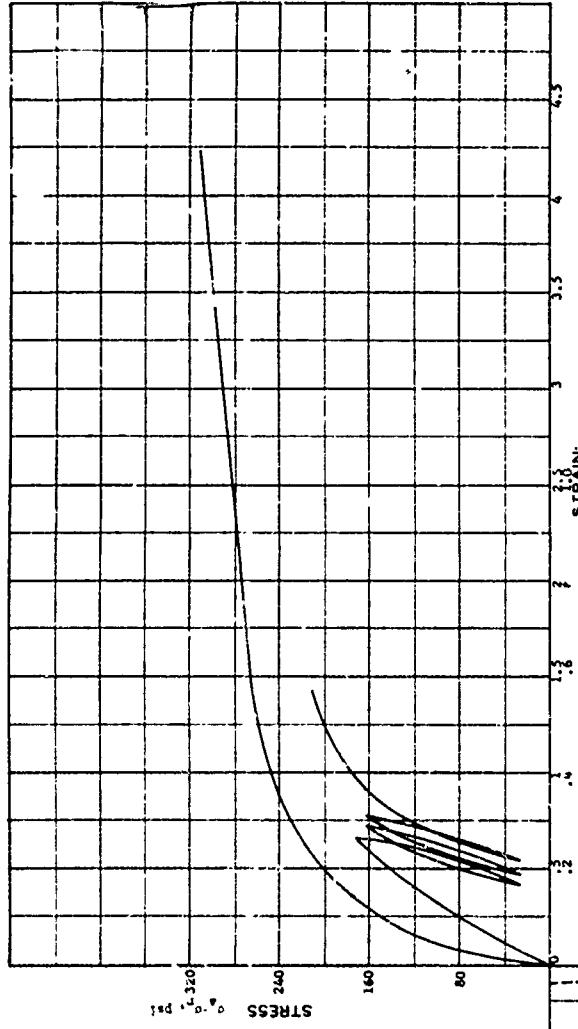
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.67 % |
| VOID RATIO | e ₀ | 0.35 |
| SATURATION | S _o | 82.06 % |
| DRY DENSITY | γ_d | 123.66 PCF |
| NET DENSITY | γ' | 136.86 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.53 CM |



HYDROSTATIC COMPRESSION PHASE



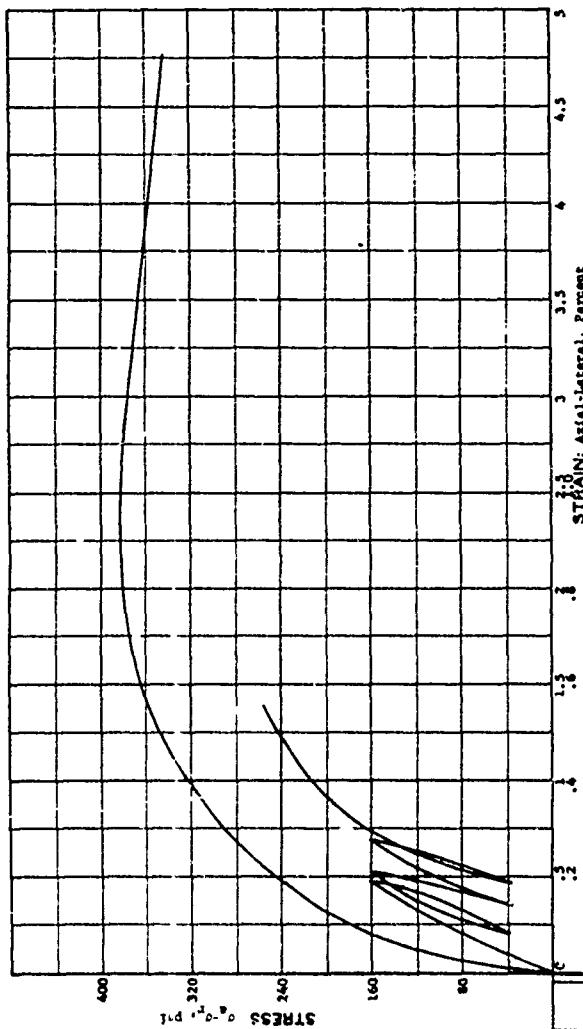
82



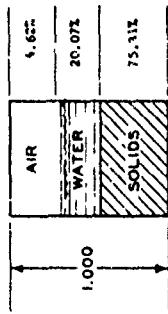
STRAIN: $\epsilon_{\text{dil-lateral}}$, Percent

| | | | |
|----------------------------------|---------------------------------------|------|----|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. DACA39-67-C-0031 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | DATE | |
| DEPTH EL. | | | |
| LL | 27 | PL | 15 |
| | | PT | 12 |
| DESCRIPTION McCordick Ranch Sand | | | |
| Triaxial-Cyclic Shear @ 35% | | | |

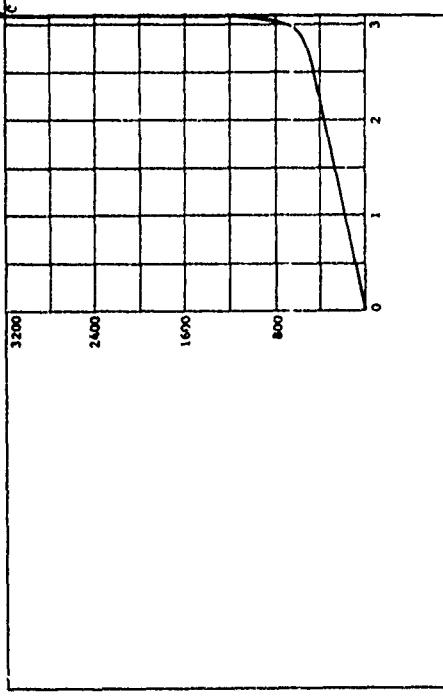
VOLUME METRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | |
|-------------------|----------------|------------|
| WATER CONTENT | w | 9.38 % |
| VOID RATIO | e ₀ | 0.33 |
| SATURATION | S _o | 81.26 % |
| DRY DENSITY | γ_d | 125.47 PCF |
| WET DENSITY | γ' | 137.39 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.52 CM |



HYDROSTATIC COMPRESSION PHASE



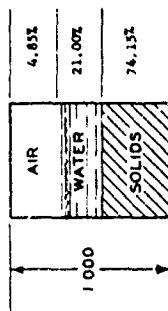
80
80

HYDROSTATIC PRESSURE, P, PSI

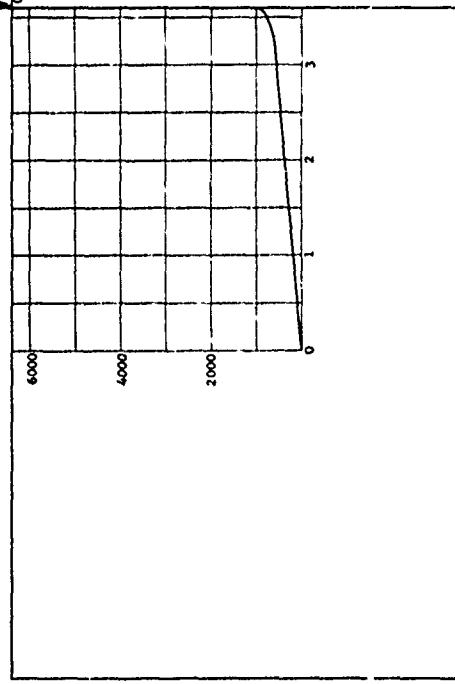
| | |
|---|----------------|
| PROJECT Georgia Institute of Technology B-602 | |
| Contract No. DAAG39-67-C-0051 | |
| AREA | |
| BORING NO | SAMPLE NO. 160 |
| DEPTH | DATE |
| EL. | |
| LL. 27 | PL. 15 |
| | P1 12 |
| DESCRIPTION McCormick Ranch Sand | |
| Plastic-Cyclic Shear @ 35% | |

VOLMETRIC STRAIN, AV/V0, PERCENT

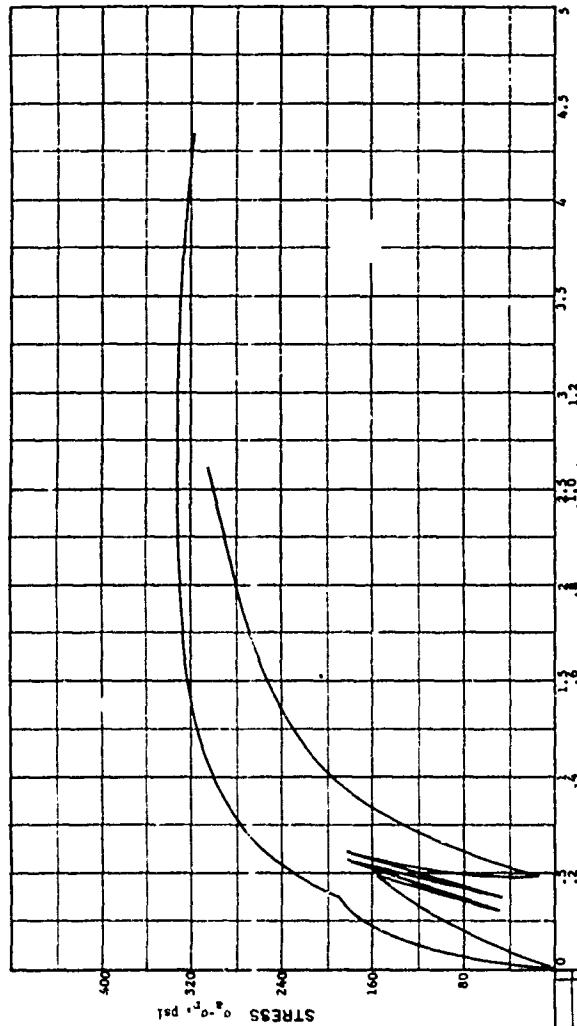
| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.60 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 81.22 % |
| DRY DENSITY | γ_d | 123.34 PCF |
| WET DENSITY | γ | 136.64 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 CM |
| SPECIMEN HEIGHT | H_o | 7.53 CM |



HYDROSTATIC COMPRESSION PHASE

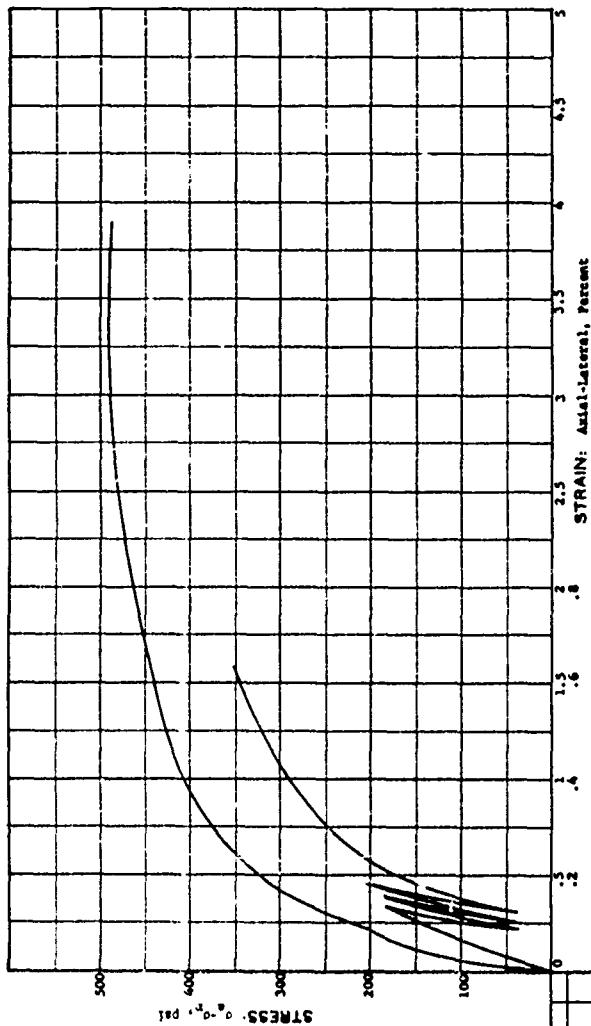


18

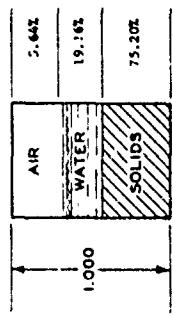


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|-------------------------------|---------------------------------------|----|----|
| PROJECT | Georgia Institute of Technology 8-602 | | |
| Contract No. DACA19-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 172 | | |
| DEPTH | DATE | | |
| EL | LL | PL | 15 |
| | 27 | | PI |
| | | | 12 |
| DESCRIPTION | McCormick Ranch Sand | | |
| Triaxial-Single Shear, G-15% | | | |

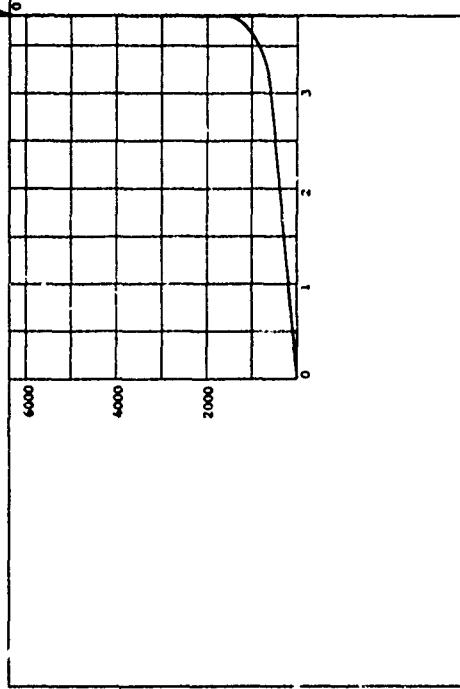
V.L.



| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 9.54 % |
| VOID RATIO | e ₀ | 0.33 |
| SATURATION | S ₀ | 77.25 % |
| DRY DENSITY | γ_d | 125.29pcf |
| WET DENSITY | γ | 137.25pcf |
| - - - GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.53 CM |



HYDROSTATIC COMPRESSION PHASE



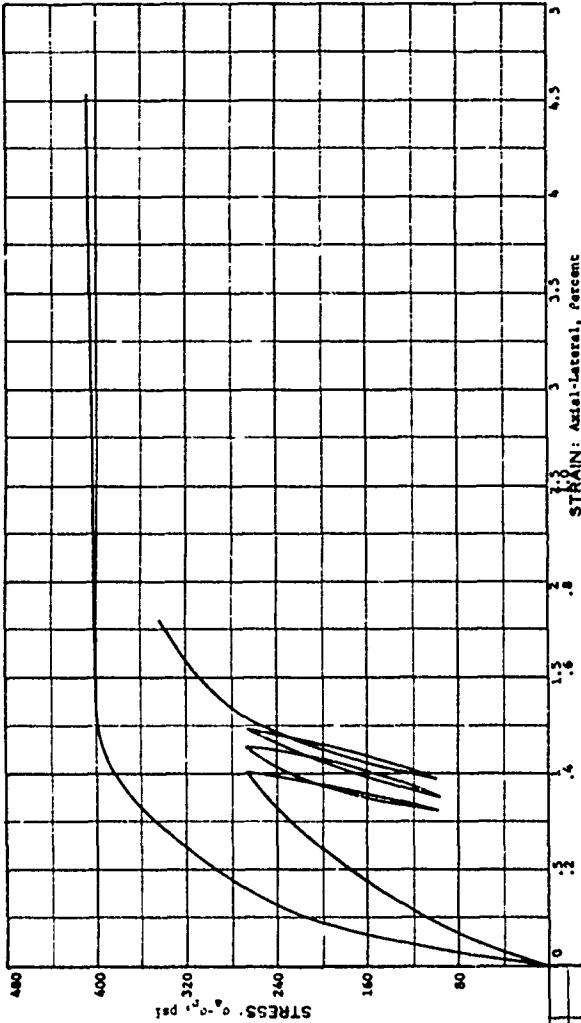
HYDROSTATIC PRESSURE, P, psi

85

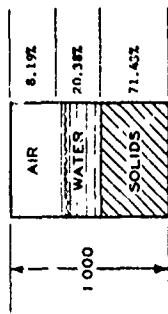
| | | | |
|----------------------------|---------------------------------------|------------|-----|
| PROJECT | Georgia Institute of Technology-B-402 | | |
| Contract No. | DACA39-67-C-0051 | | |
| AREA | | | |
| BORING NO. | | SAMPLE NO. | 173 |
| DEPTH EL. | | DATE | |
| LL | 27 | PL | LS |
| | | P1 | 12 |
| DESCRIPTION | | | |
| McCombath L. Job Sand | | | |
| Initial-Cycle Shear, 0.35% | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

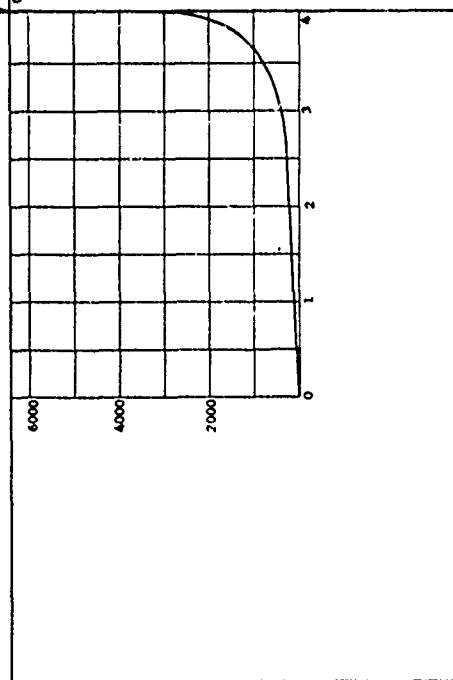
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.68 | % |
| VOID RATIO | e_0 | 0.40 | |
| SATURATION | S_0 | 71.32 | % |
| DRY DENSITY | γ_d | 119.00 | pcf |
| WET DENSITY | γ | 131.72 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.54 | cm |



HYDROSTATIC COMPRESSION PHASE

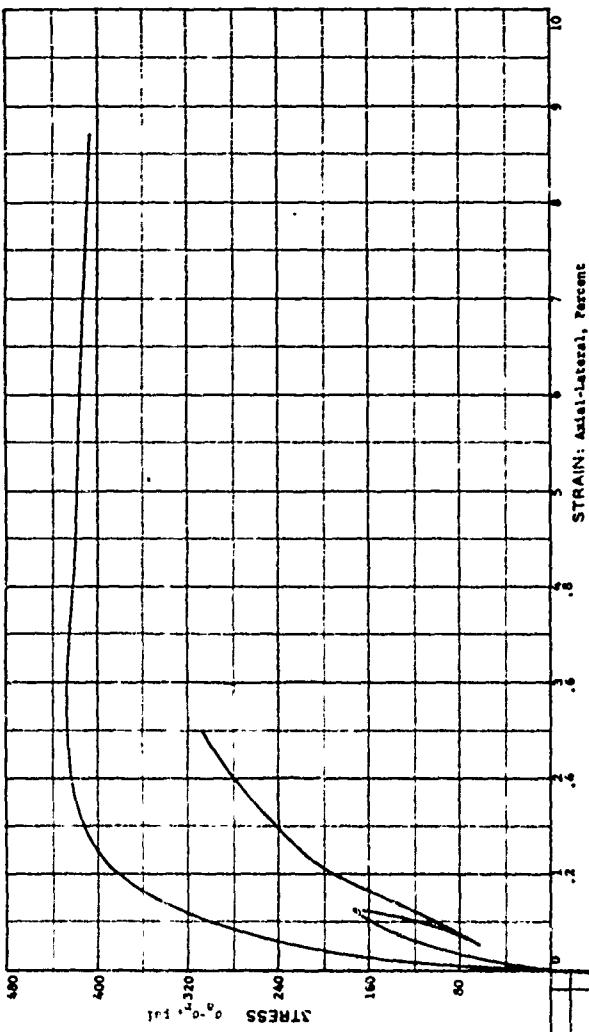


HYDROSTATIC PRESSURE, P , psi

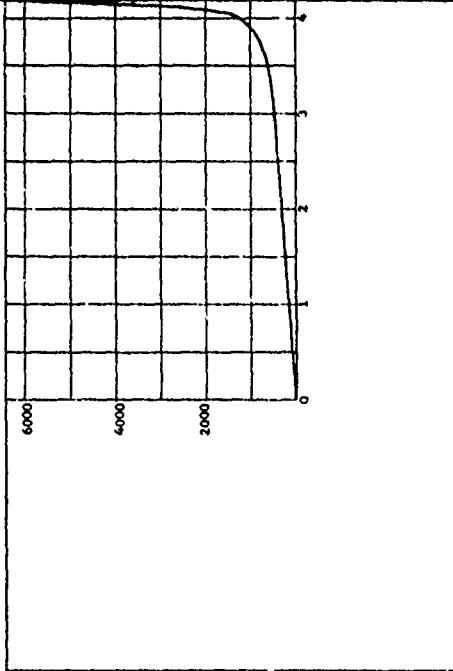
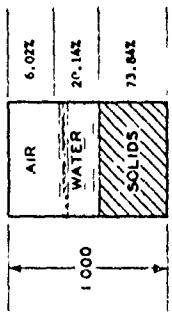


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|---|----------------|
| PROJECT Georgia Institute of Technology B-602 | |
| Contract No. DACA19-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 178 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 PI 12 |
| DESCRIPTION McCormick Ranch Sand | |
| Triaxial-Cyclic Shear @ 35% | |
| | |

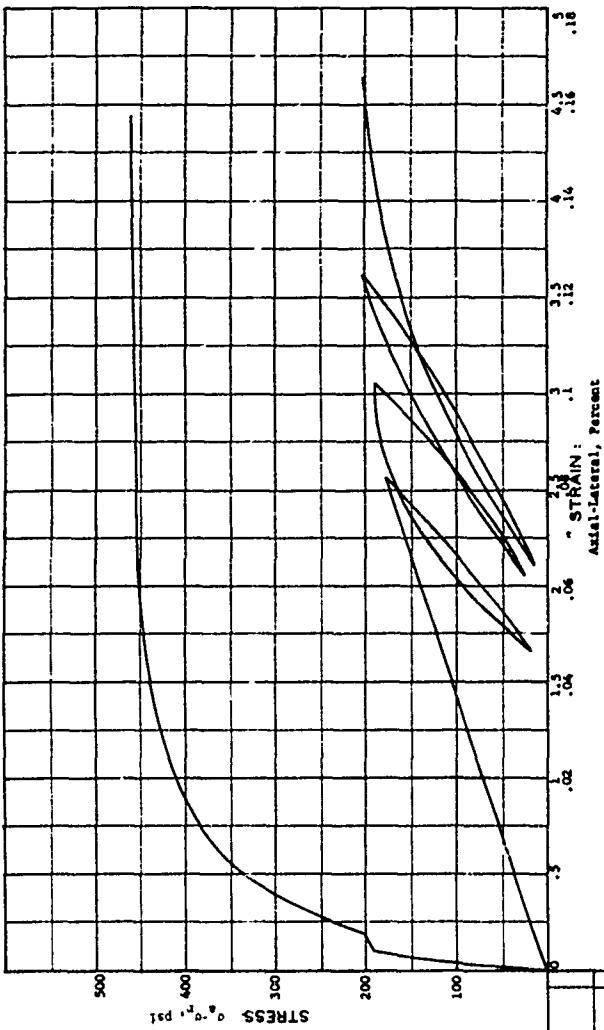
| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.22 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | s_0 | 76.97 % |
| DRY DENSITY | γ_d | 123.02 Pcf |
| WET DENSITY | γ | 135.58 Pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.51 CM |
| SPECIMEN HEIGHT | H_o | 7.56 CM |



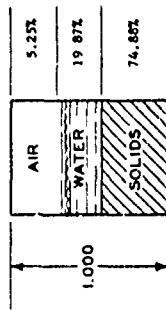
HYDROSTATIC COMPRESSION PHASE



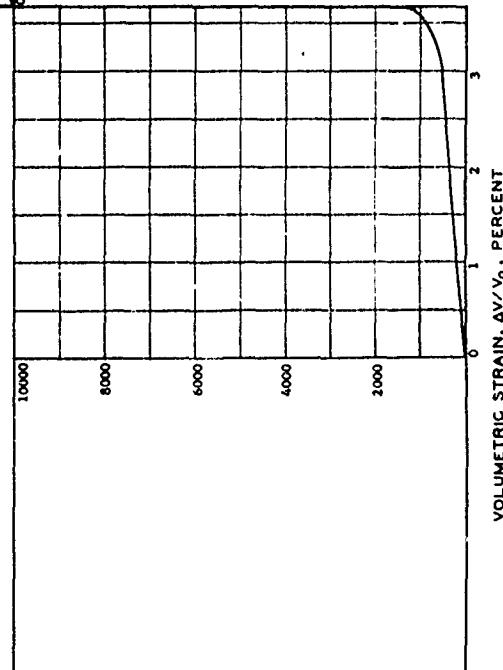
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|---------------------------------|---------------------------------------|
| PROJECT | Geotext Institute of Technology 1-602 |
| Contract No. | DAAC39-97-0031 |
| | |
| AREA | SAMPLE NO. 180 |
| BORING NO | DATE |
| DEPTH | |
| EL. | |
| LL | PL LS PL LS |
| DESCRIPTION Recomick Ranch Sand | |
| Triaxial-Cycle Shear Q-352 | |



| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 9.34 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 79.11 % |
| DRY DENSITY | γ_d | 124.75 PCF |
| WET DENSITY | γ | 137.15 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.51 CM |
| SPECIMEN HEIGHT | H_o | 7.32 CM |



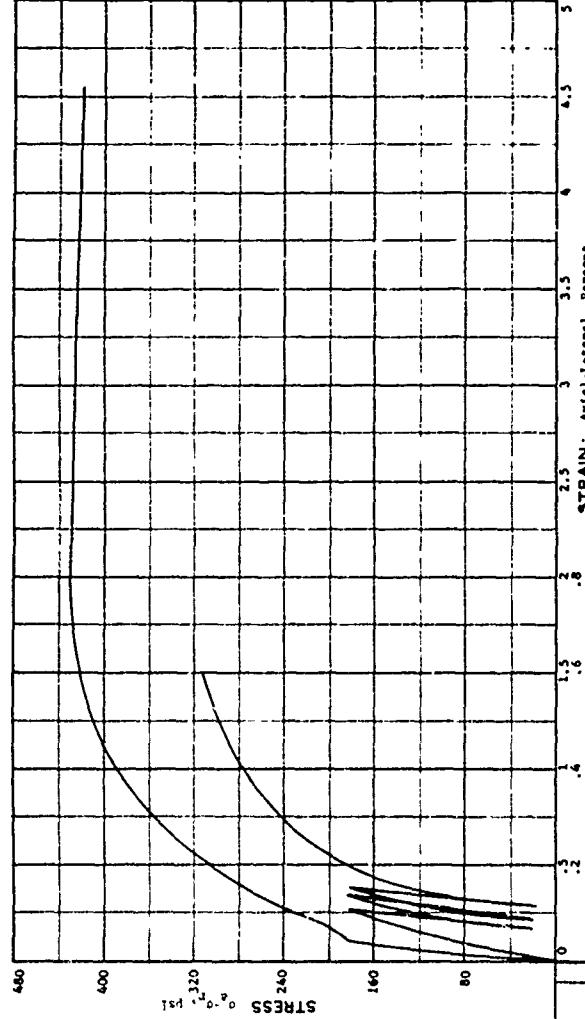
HYDROSTATIC COMPRESSION PHASE



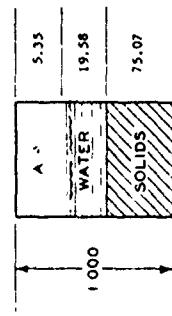
HYDROSTATIC PRESSURE, P, PSI

| | |
|---|----------------|
| PROJECT Georgia Institute of Technology A-102 | |
| Contract No. DMAA39-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 171 |
| DEPTH EL | DATE |
| LL 27 | PL 15 |
| DESCRIPTION McCormick Ranch Sand | |
| Triaxial-Cyclic Shear @ 35% | |

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 9.77 % |
| VOID RATIO | e ₀ | 0.33 |
| SATURATION | S _o | 78.56 % |
| DRY DENSITY | γ_d | 125.08 PCF |
| WET DENSITY | γ | 137.30 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.52 CM |



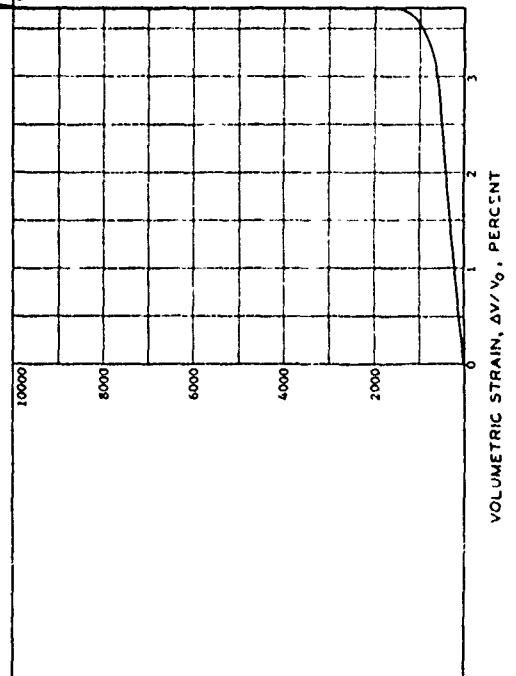
HYDROSTATIC COMPRESSION PHASE

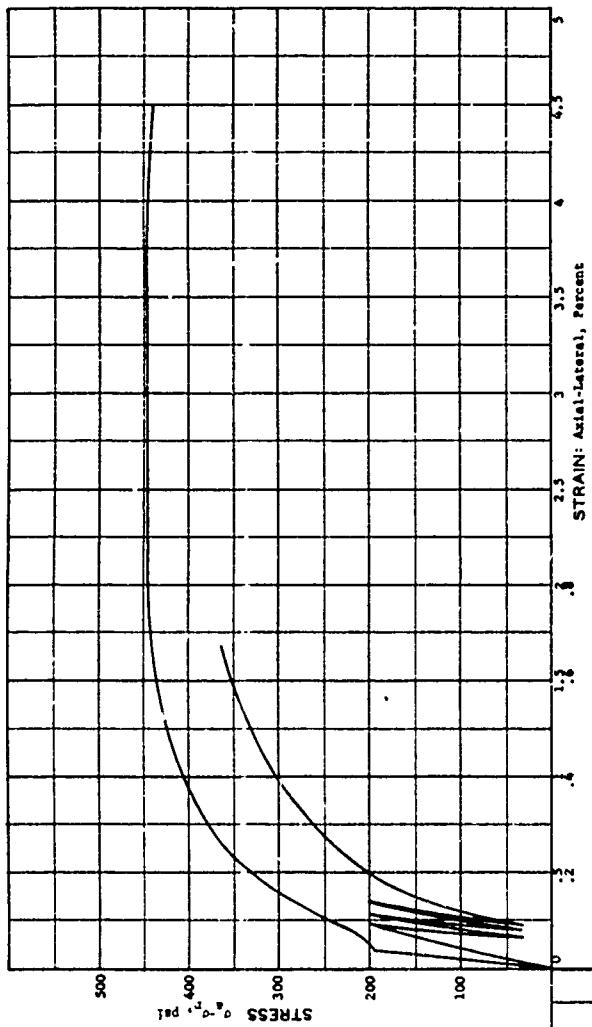


28

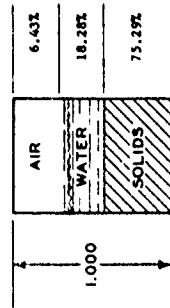
HYDROSTATIC PRESSURE, P, PSI

| | | |
|----------------------------------|---------------------------------------|----------------|
| PROJECT | Georgia Institute of Technology S-602 | |
| Contract No. | DACA39-67-C-0051 | |
| AREA | | |
| BORING NO. | SAMPLE NO 176 | |
| DEPTH | DATE | |
| EL | | |
| LL | P _L | P _I |
| 27 | 15 | 12 |
| DESCRIPTION McCormick Ranch Sand | | |
| Triaxial-Cycle Shear Q-352 | | |

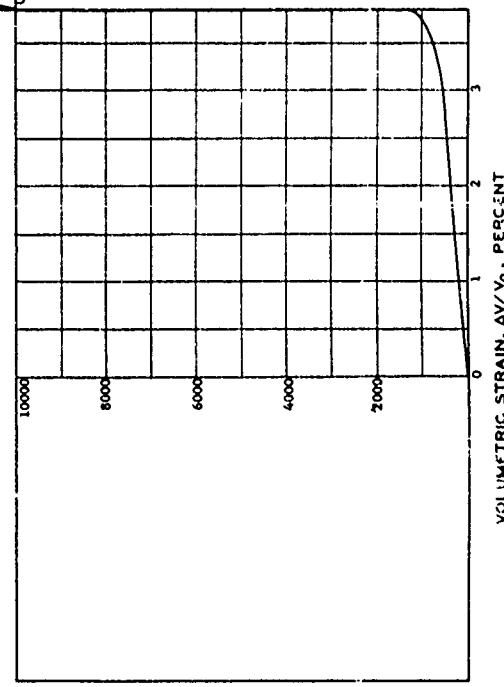




| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 9.09 % |
| VOID RATIO | e ₀ | 0.33 |
| SATURATION | s ₀ | 74.01 % |
| DRY DENSITY | γ _d | 125.45 PCF |
| WET DENSITY | γ _w | 136.86 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.51 CM |



HYDROSTATIC COMPRESSION PHASE



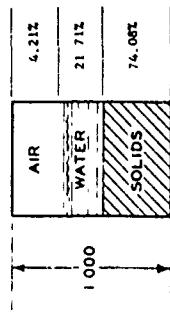
90

| | |
|---|----------------|
| PROJECT Georgia Institute of Technology B-602 | |
| Contract No. DACA39-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 179 |
| DEPTH | DATE |
| EL. | PL |
| LL | P _L |
| DESCRIPTION McCormick Ranch Sand | |
| Triaxial-Cyclic Shear @ 3% | |

Group C

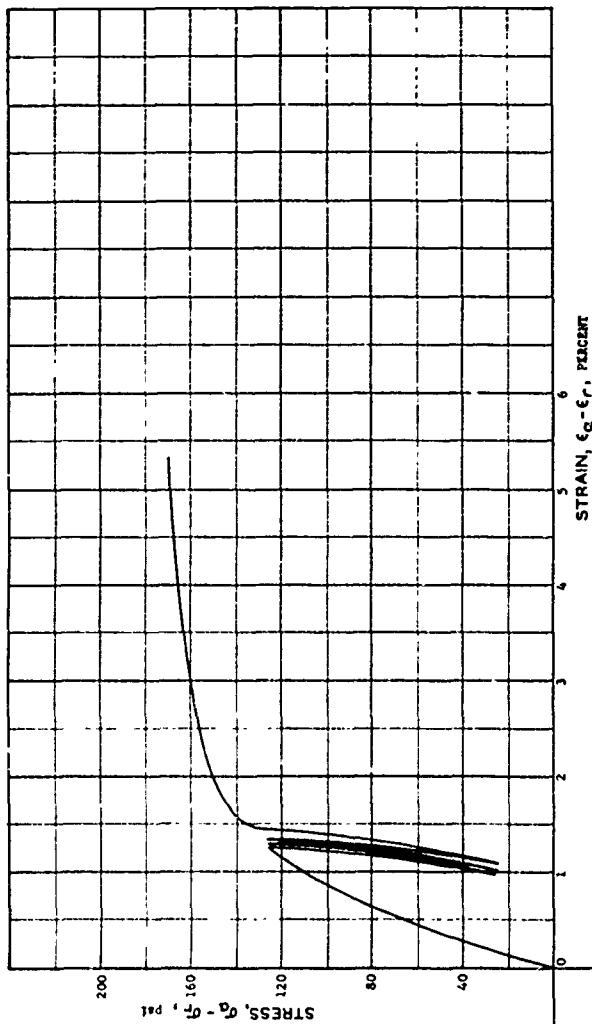
Triaxial Tests, Cyclic at 75%

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.98 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_0 | 83.77 % |
| DRY DENSITY | γ_d | 123.43 PCF |
| WET DENSITY | γ | 136.97 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_0 | 3.51 CM |
| SPECIMEN HEIGHT | H_0 | 7.52 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI



STRESS, $\sigma_a - \sigma_f$, PSI

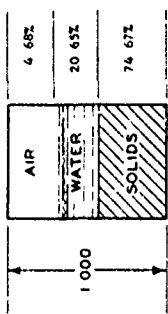
STRAIN, $\epsilon_a - \epsilon_f$, PERCENT

| | | |
|----------------------------------|----------------|----|
| PROJECT | G-Tech B-602, | |
| Contract No. DACA39-67-C-0031 | | |
| | | |
| AREA | | |
| BORING NO | SAMPLE NO. 107 | |
| DEPTH | DATE | |
| EL | | |
| LL | 27 | PL |
| | 15 | P1 |
| | | 12 |
| DESCRIPTION McCormick Ranch Sand | | |
| Initial-Cycle Shear @ 75% | | |

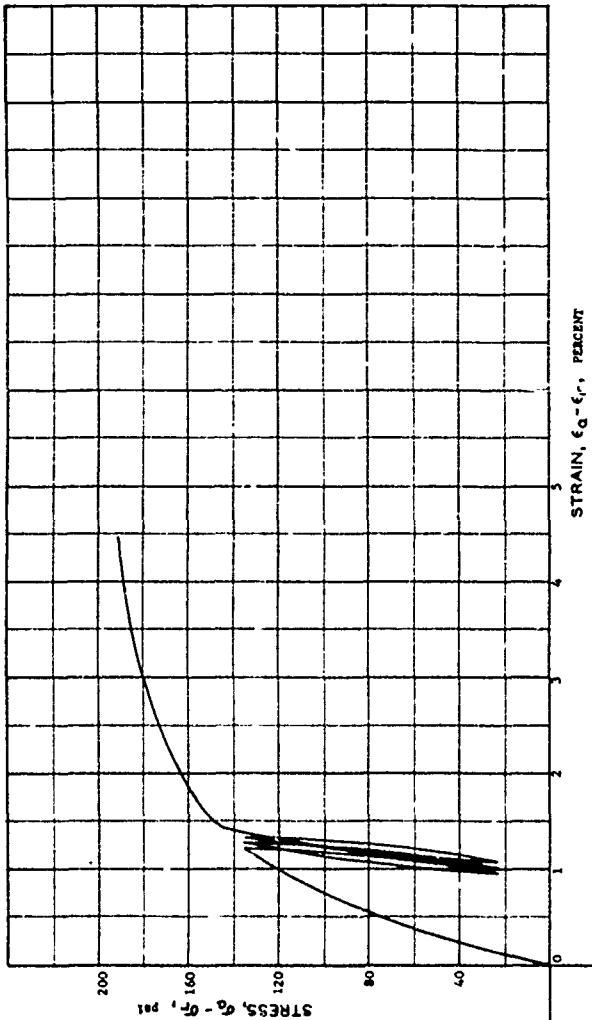
VOLMETRIC STRAIN, $\Delta V/V_0$, PERCENT

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|-------------------|------------|-----------|
| WATER CONTENT | W | 10.36 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 81.32 % |
| DRY DENSITY | γ_d | 126.40pcf |
| WET DENSITY | γ | 137.29pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.51 cm |
| SPECIMEN HEIGHT | H_o | 7.51 cm |



HYDROSTATIC COMPRESSION PHASE



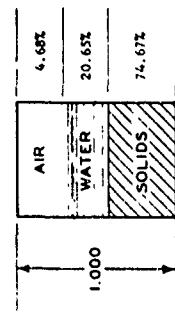
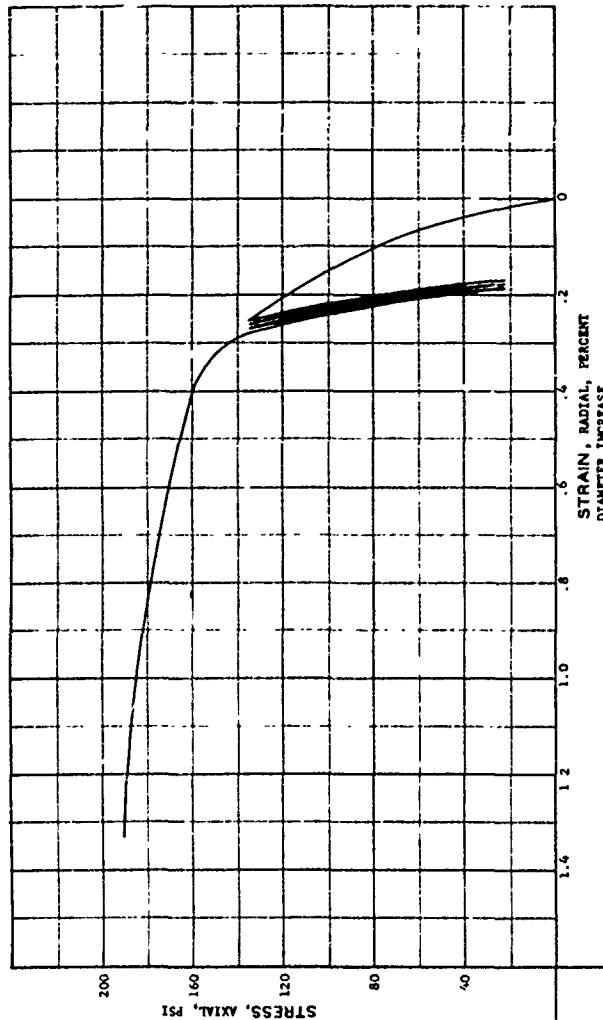
HYDROSTATIC PRESSURE, P, PSI

94

| | | |
|----------------------------------|----------------|-------------|
| PROJECT | Ge Tech S-602, | |
| Contract No. DA-CA-39-67-C-0251 | | |
| AREA | | |
| BORING NO | SAMPLE NO. 109 | |
| DEPTH | | DATE |
| EL | | |
| LL | 27 | PL 15 PI 12 |
| DESCRIPTION McCormick Ranch Sand | | |
| Triassic, Cycite 0.75% | | |
| Lateral Pressure, 200 psi | | |

VOLMETRIC STRAIN, ΔV/V₀, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.36 | % |
| VOID RATIO | e_0 | 0.14 | |
| SATURATION | S_o | 81.32 | % |
| DRY DENSITY | γ_d | 124.40 | PCF |
| WET DENSITY | γ | 137.39 | PCF |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.51 | CM |
| SPECIMEN HEIGHT | H_o | 7.51 | CM |



HYDROSTATIC COMPRESSION PHASE

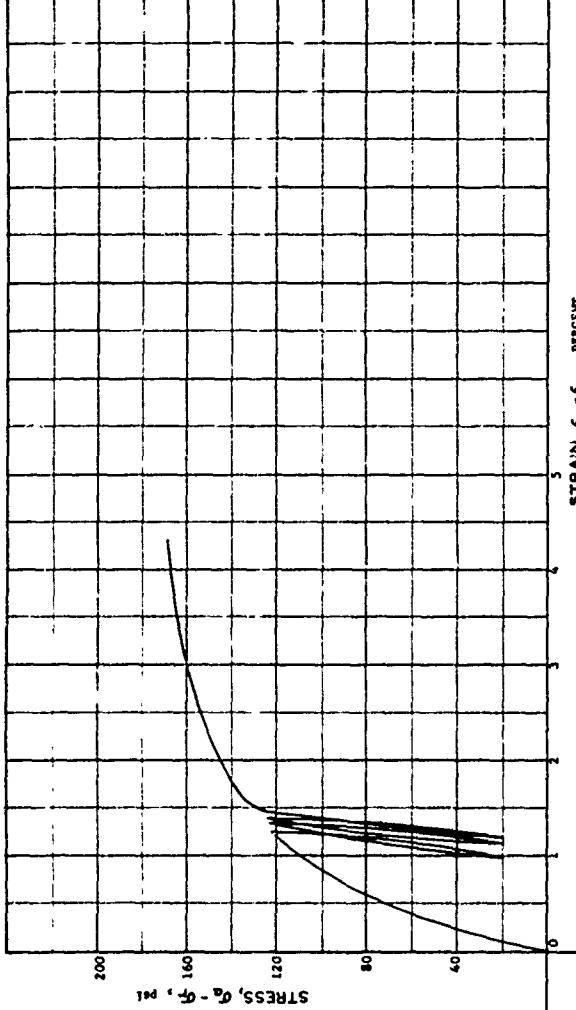
HYDROSTATIC PRESSURE, P, PSI

95

| | |
|--------------|------------------|
| PROJECT | G. Tech B-602. |
| Contract No. | DACAR3-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 109 |
| DEPTH EL. | DATE |
| LL | PL 15 PI 12 |

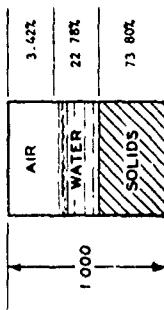
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT
HYDROSTATIC PRESSURE, 200 psi

Lateral Pressure, 200 psi



STRAIN, $\epsilon_0 - \epsilon_r$, PERCENT

HYDROSTATIC COMPRESSION PHASE



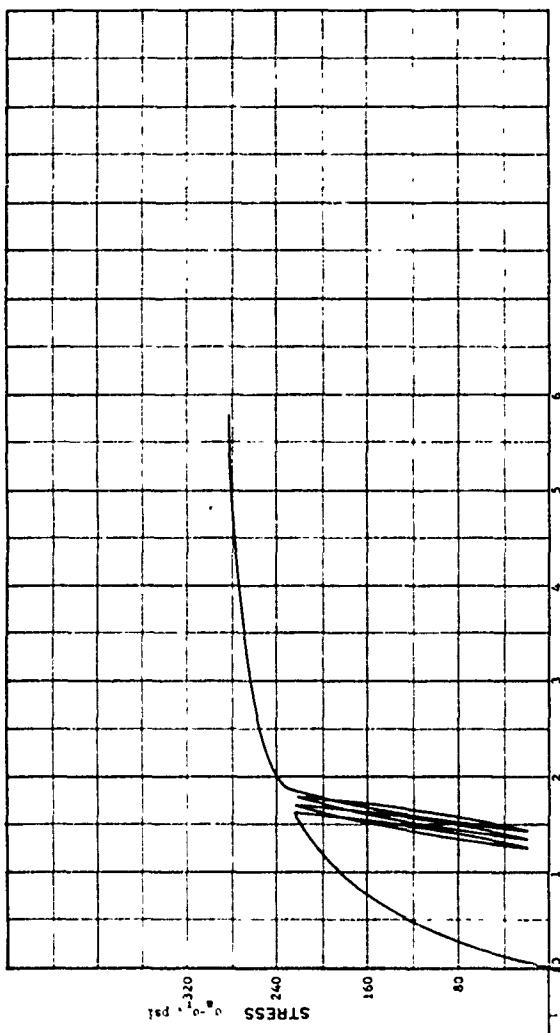
| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 11.56 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 86.96 % |
| DRY DENSITY | γ_d | 122.95pcf |
| WET DENSITY | γ | 137.17pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.52 CM |
| SPECIMEN HEIGHT | H_o | 7.49 CM |

AQUASTATIC PRESSURE, P, PSI

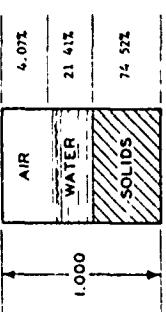
| | |
|----------------------------|------------------|
| PROJECT | Ga Tech 3-602. |
| Contract No. | DACAL9-67-C-0051 |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. 113 |
| DEPTH | DATE |
| EL. | |
| LL | PL IS PI 12 |
| DESCRIPTION | |
| McCorckle Branch Sand | |
| Triaxial-Cycle Shear @ 75% | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.76 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | S ₀ | 64.03 % |
| DRY DENSITY | γ_d | 124.15 PCF |
| WEIGHT DENSITY | γ | 137.51 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.54 CM |

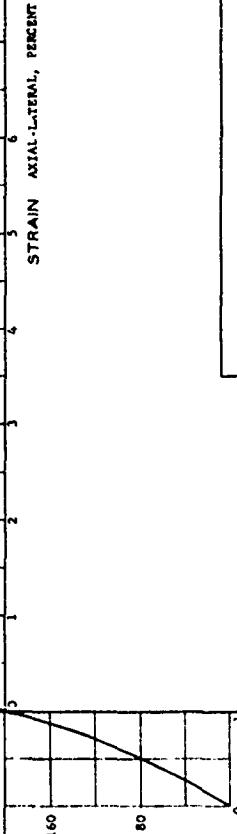


HYDROSTATIC COMPRESSION PHASE

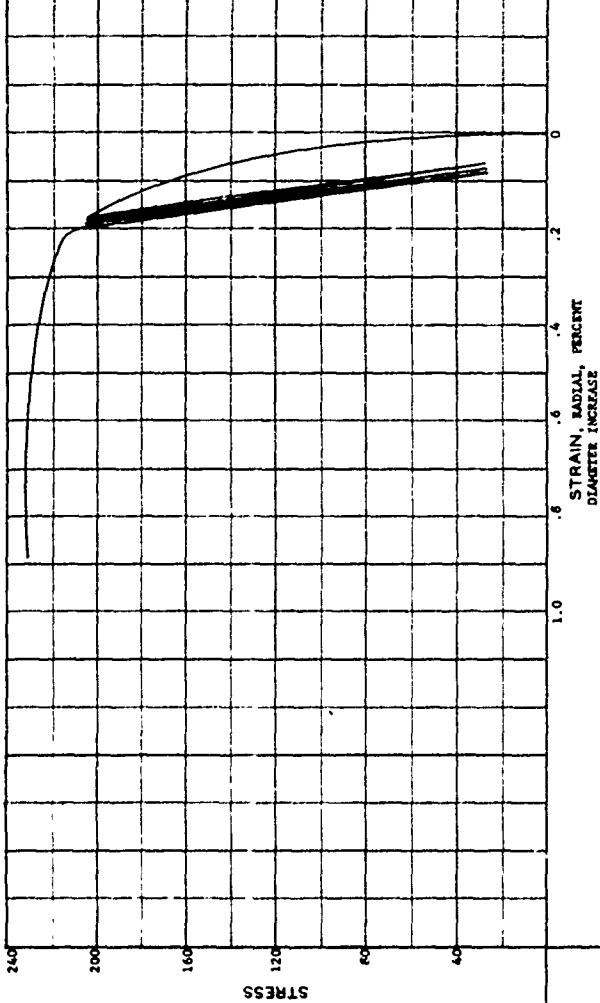


HYDROSTATIC PRESSURE, P, PSI

97

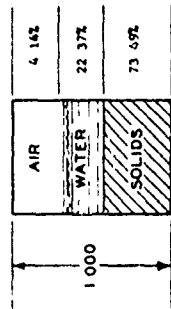


| | | | |
|--|------------------------|---------------|-------|
| PROJECT <u>Ge Tech B-602</u> | | | |
| Contract No. <u>DACA99-67-C-0051</u> | | | |
| AREA _____ | | | |
| BORING NO _____ | SAMPLE NO. <u>103C</u> | DEPTH _____ | |
| EL. _____ | DATE _____ | _____ | |
| LL. <u>27</u> | PL. <u>15</u> | P1. <u>12</u> | _____ |
| DESCRIPTION <u>McComick Ranch Sand</u> | | | |
| Triaxial-Cyclic Shear @ 75% | | | |



HYDROSTATIC COMPRESSION PHASE

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.40 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_0 | 84.40 | % |
| DRY DENSITY | γ_d | 122.44 | pcf |
| WET DENSITY | γ | 136.40 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.52 | cm |
| SPECIMEN HEIGHT | H_o | 7.50 | cm |



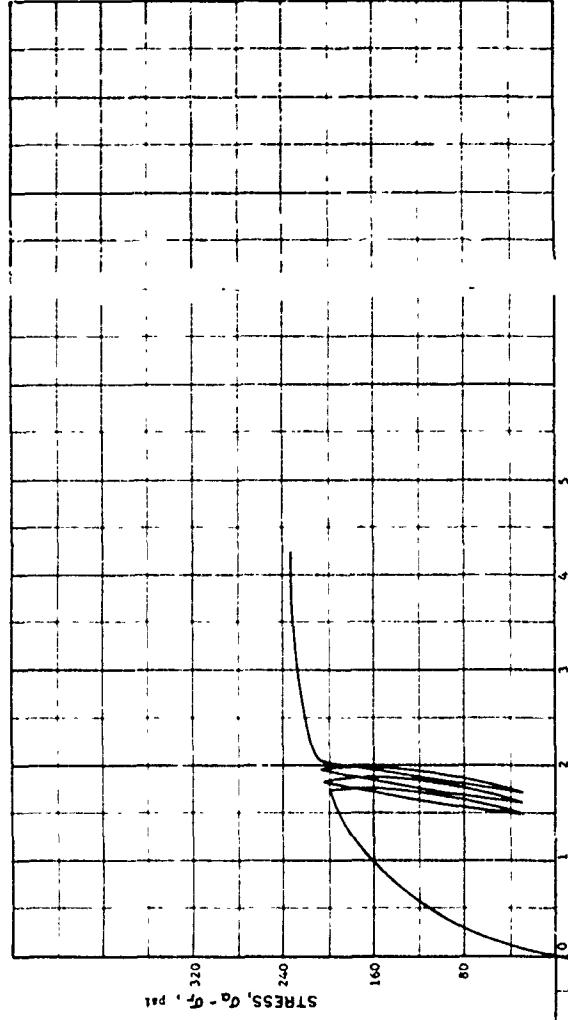
HYDROSTATIC PRESSURE, P, PSI

98

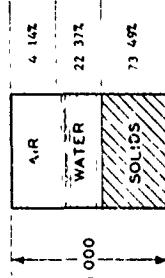
| | | | |
|-----------------------------------|----------------|-------|-------|
| PROJECT | Ge Tech 3-692 | | |
| Contract No. | DACAR-67-C-905 | | |
| AREA | | | |
| BORING NO. | SA 1 | | |
| EL | E NO. 110 | DAF | |
| LL | 27 | PL 15 | PT 12 |
| DESCRIPTION McConaughy Marsh Sand | | | |
| Triaxial, Cyclic @ 753 | | | |
| Lateral Pressure, 200 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 11.40 % |
| VOID RATIO | e_0 | 0.36 |
| SATURATION | S_o | 84.40 % |
| DRY DENSITY | γ_d | 122.44 PCF |
| WET DENSITY | γ | 136.40 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.52 CM |
| SPECIMEN HEIGHT | H_o | 7.50 CM |



HYDROSTATIC COMPRESSION PHASE

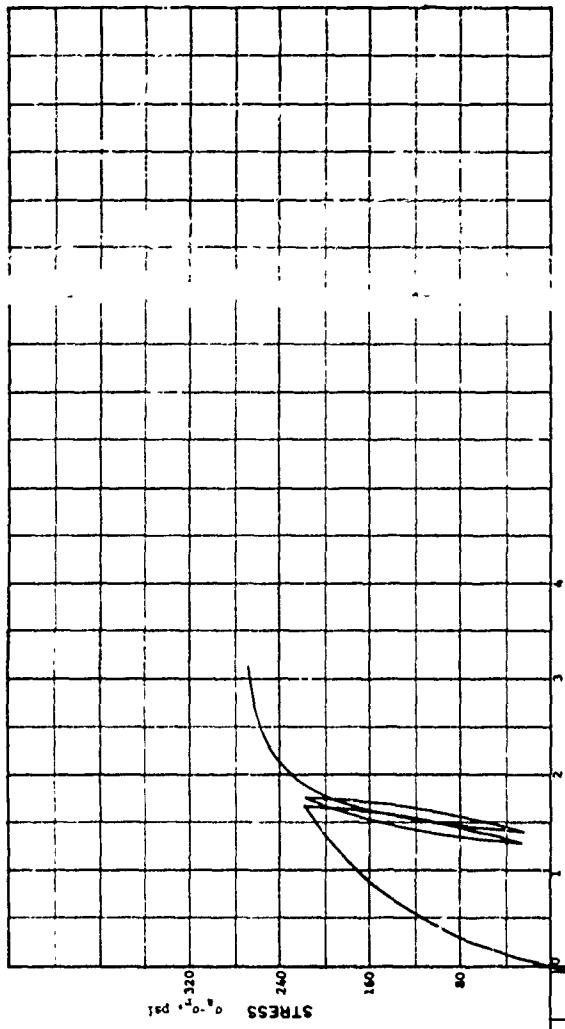


HYDROSTATIC PRESSURE, p , PSI

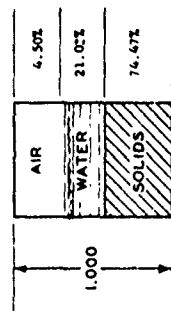
96

| | |
|---------------------------|-------------------------------|
| PROJECT | Ga Tech B-602. |
| | Contract No. DA-CA-39-67-C-01 |
| | |
| AREA | |
| BORING NO. | S. FLINN 110 |
| DEPTH | EL |
| EL | LL |
| LL | 27 PL 15 PI 12 |
| DESCRIPTION | |
| McCormick Ranch Ranch | |
| Material, Cyclic Q-752 | |
| Lateral Pressure, 200 psi | |

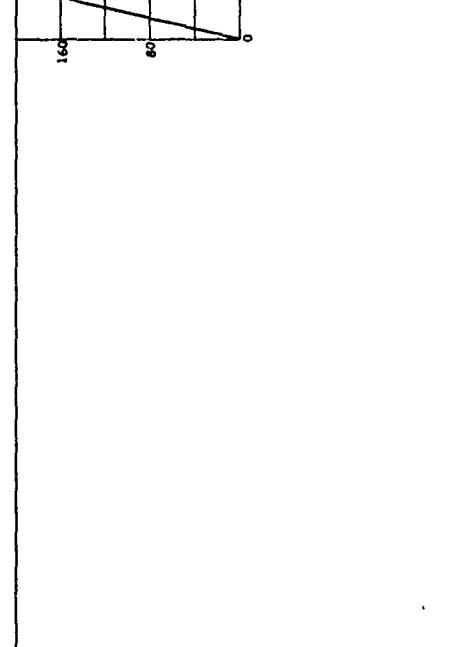
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.58 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 82.38 % |
| DRY DENSITY | γ_d | 124.08pcf |
| WET DENSITY | γ_w | 137.20pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.52 cm |
| SPECIMEN HEIGHT | H_o | 7.42 cm |



HYDROSTATIC COMPRESSION PHASE

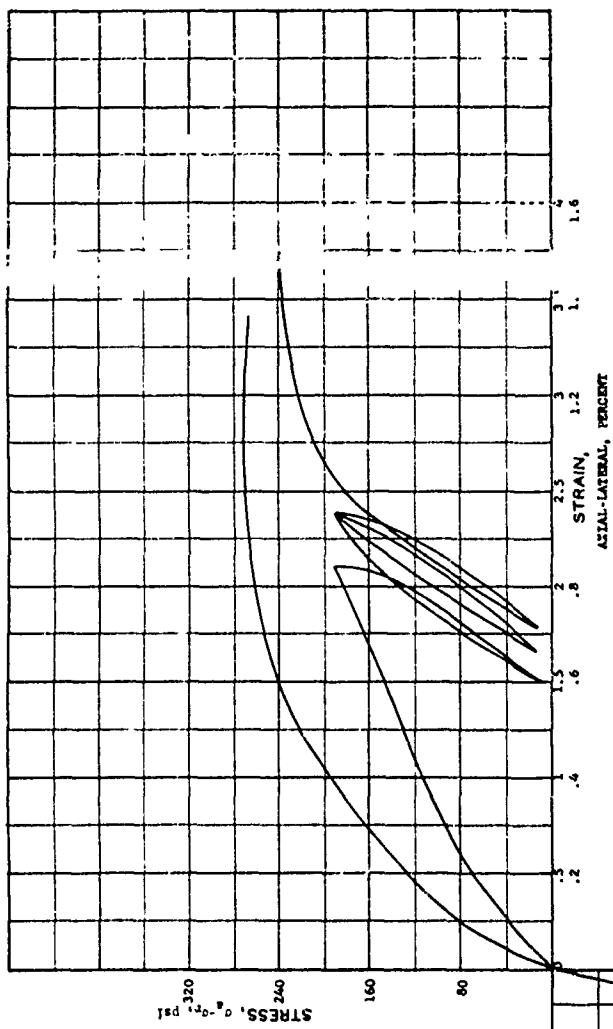
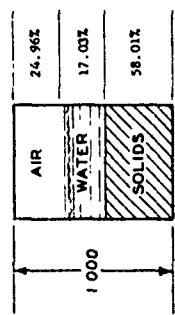


100

| | | |
|-------------|-----------------------------|-------|
| PROJECT | Georgia Institute of Tech | Y |
| Core No. | DAC19-67-D-1 | |
| AREA | | |
| BORING NO. | SAMPLE NO. 123 | |
| DEPTH | TE | |
| EL. | | |
| LL. | 27 | PL 15 |
| | | P1 12 |
| DESCRIPTION | McCorck Ranch Sand | |
| | Triaxial-Cyclic Shear G / t | |

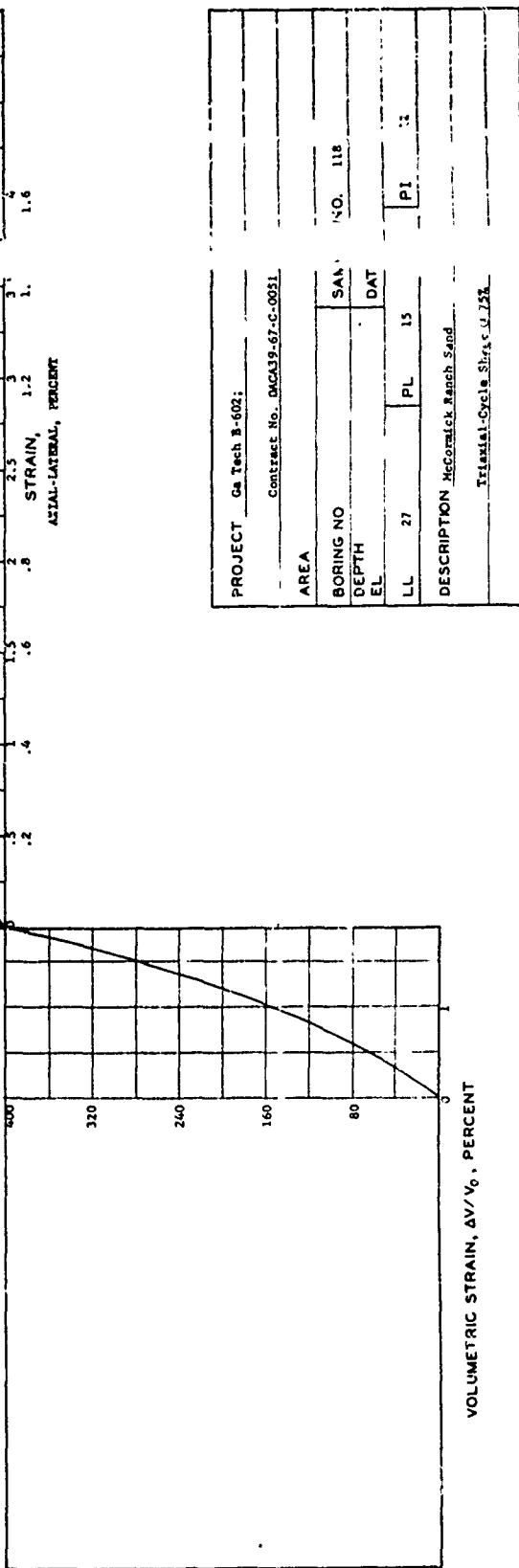
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.99 % |
| VOID RATIO | e _v | 0.72 |
| SATURATION | S _o | 40.55 % |
| DRY DENSITY | γ_d | 96.65 PCF |
| WET DENSITY | γ | 101.27 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.95 CM |
| SPECIMEN HEIGHT | H ₀ | 7.51 CM |

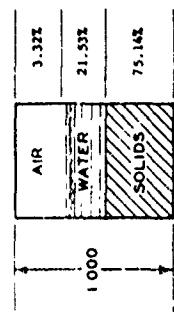


HYDROSTATIC PRESSURE, P , PSI

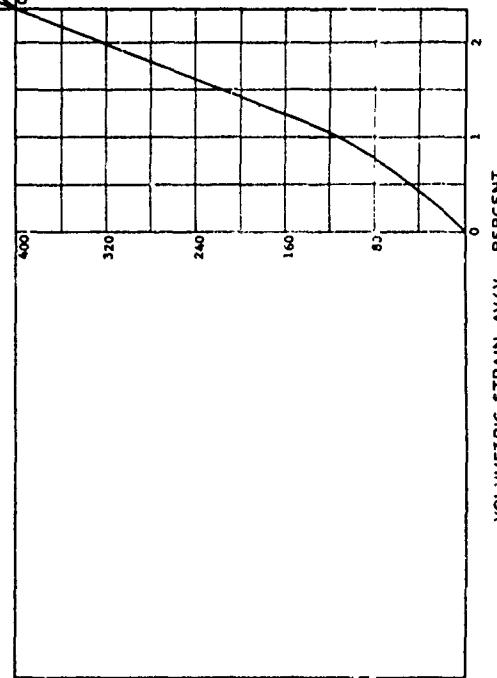
101



| | | |
|-------------------|----------------|------------|
| WATER CONTENT | w | 10.73 % |
| VOID RATIO | e ₀ | 0.33 |
| SATURATION | s ₀ | 66.63 % |
| DRY DENSITY | γ_d | 123.20 PCF |
| WET DENSITY | γ | 138.63 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.69 CM |
| SPECIMEN HEIGHT | H ₀ | 2.46 CM |

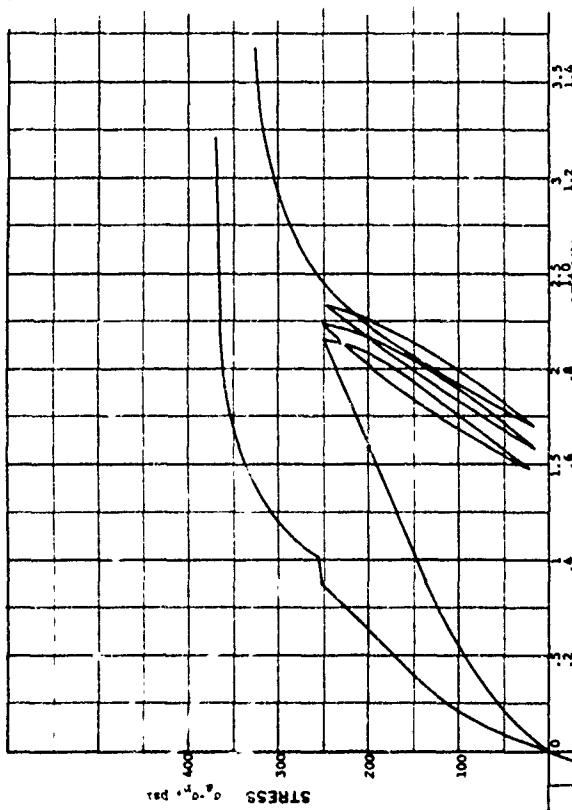


HYDROSTATIC COMPRESSION PHASE



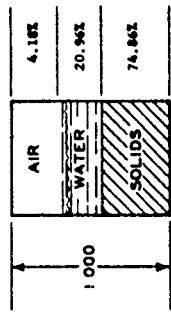
HYDROSTATIC PRESSURE, P, PSI

102

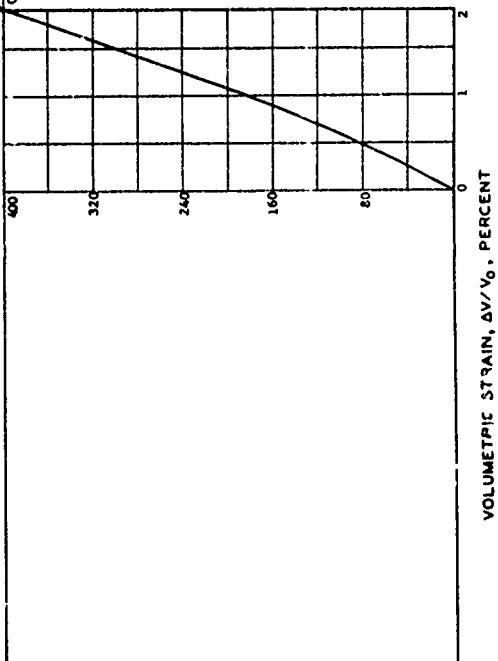


| | |
|----------------------------|--|
| PROJECT | Geotechnical Institute of Technology 3-602 |
| Contract No. | DMCA9-67-C-0011 |
| AREA | |
| BORING NO. | SAMPLE NO. |
| DEPTH EL | DATE |
| LL 27 | PL 15 |
| | 120 |
| | 12 |
| DESCRIPTION | McComick Ranch Sand |
| Triaxial-Cycle Sheet Q-252 | |

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.49 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 83.38 % |
| DRY DENSITY | γ_d | 126.73 PCF |
| WET DENSITY | γ_w | 137.80 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 CM |
| SPECIMEN HEIGHT | H_o | 7.47 CM |

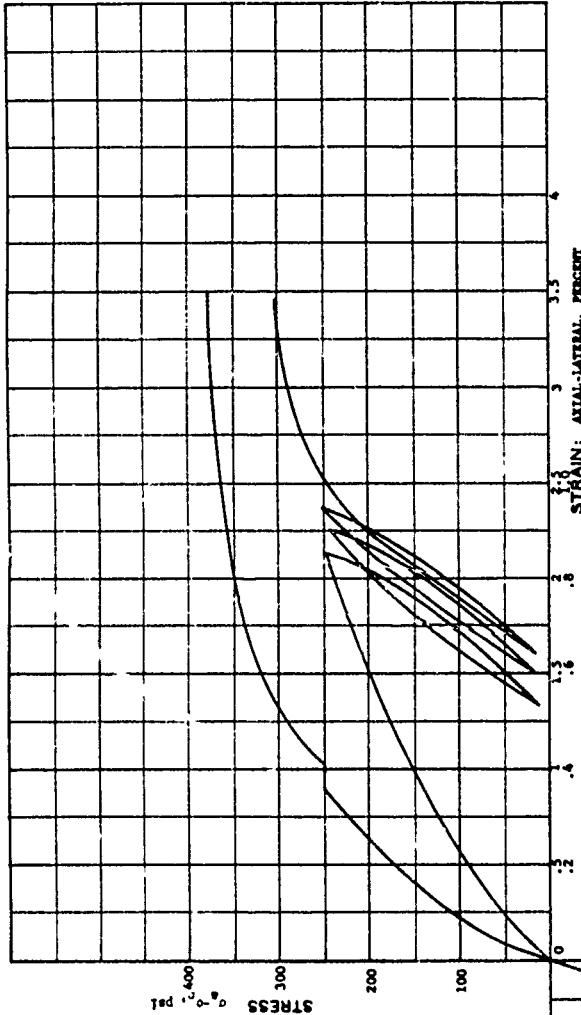


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

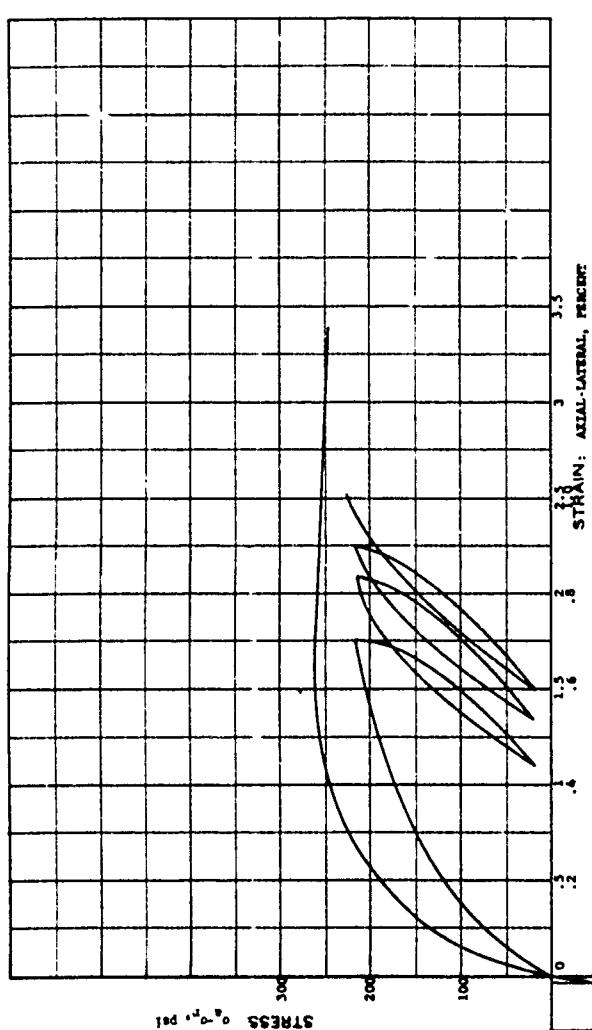
103



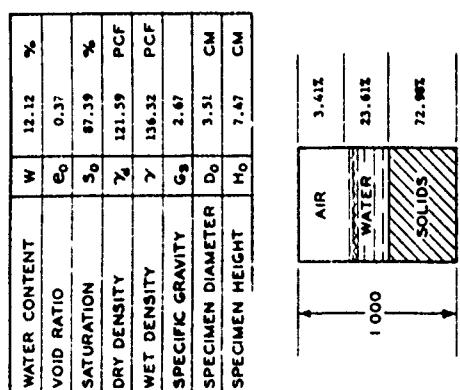
STRAIN: AXIAL-LATERAL, PERCENT

| | | | | |
|-------------------------------|---------------------------------|------|--|--|
| PROJECT | Georgia Institute of Technology | | | |
| Contract No. DACA39-67-C-0031 | | | | |
| AREA | | | | |
| BORING NO. | SAMPLE NO. 121 | | | |
| DEPTH | | DATE | | |
| EL. | | | | |
| LL | 27 | PL | | |
| | | 15 | | |
| | | P1 | | |
| | | 12 | | |
| DESCRIPTION | | | | |
| McConaughay Ranch Sand | | | | |
| Triaxial-Cycle Shear @ 75% | | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

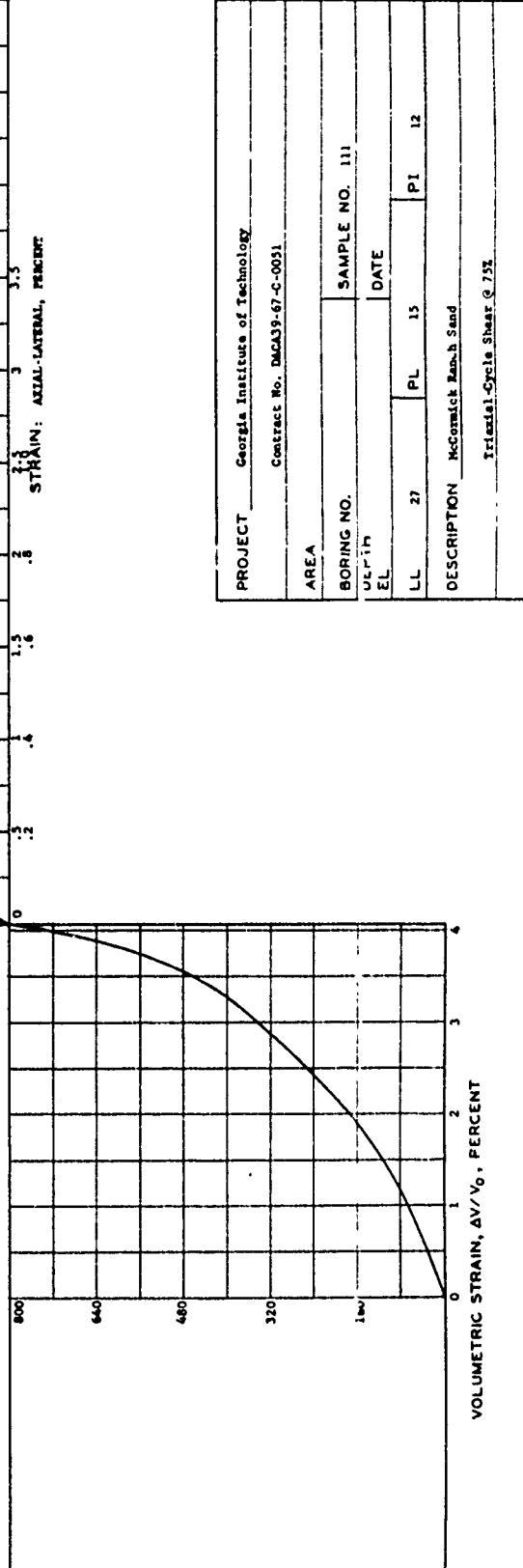


HYDROSTATIC COMPRESSION PHASE

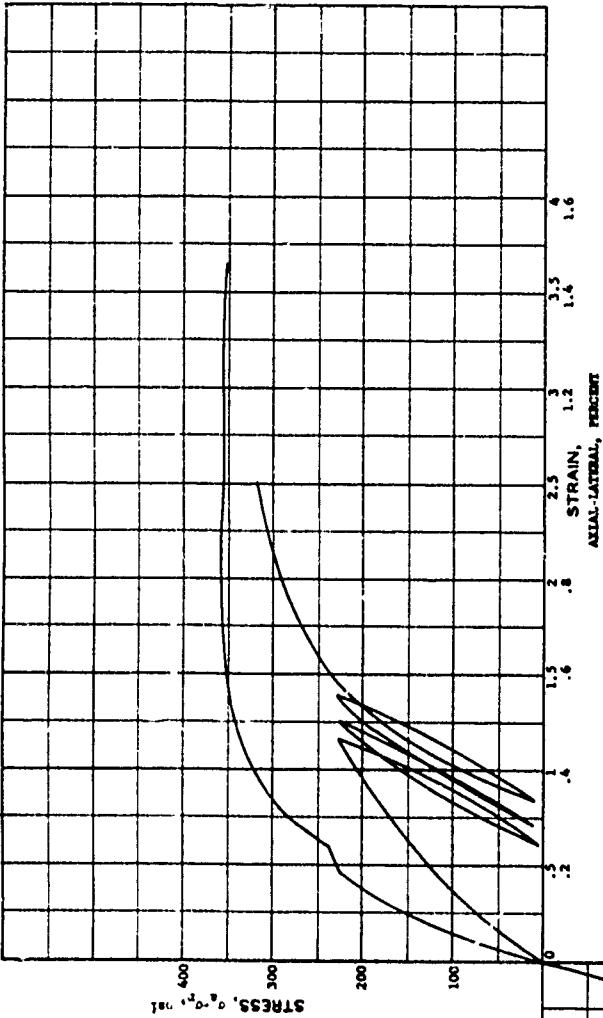


HYDROSTATIC PRESSURE, P, PSI

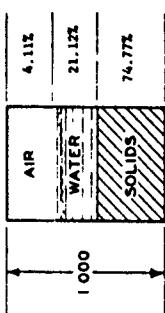
10^4



| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.58 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_0 | 63.12 % |
| DRY DENSITY | γ_d | 124.57 PCF |
| WET DENSITY | γ | 137.75 PCF |
| CONCRETE GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_0 | 3.51 CM |
| SPECIMEN HEIGHT | H_0 | 7.46 CM |

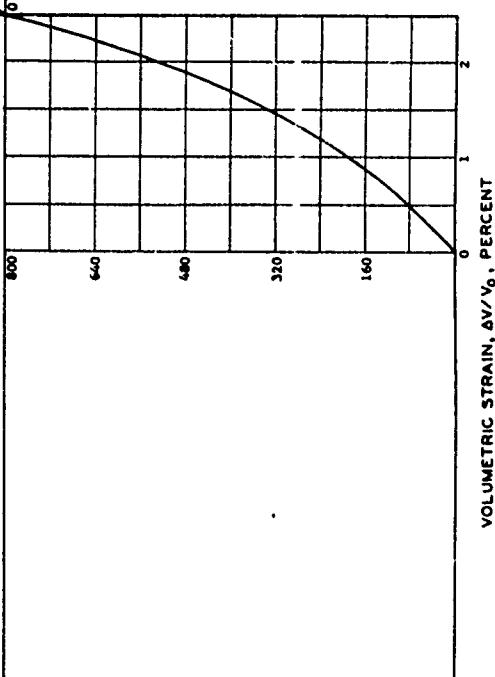


HYDROSTATIC COMPRESSION PHASE

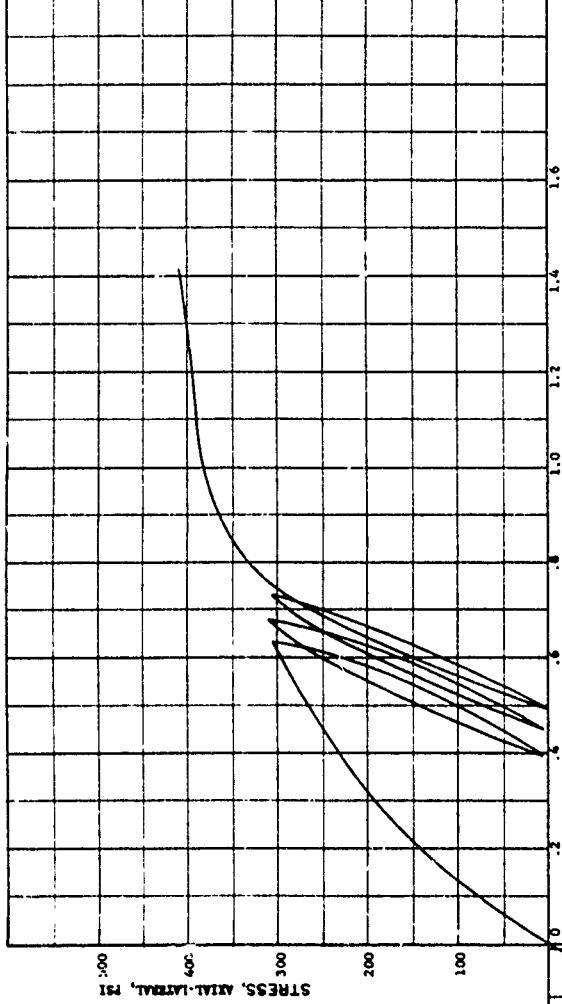


HYDROSTATIC PRESSURE, P, PSI

105



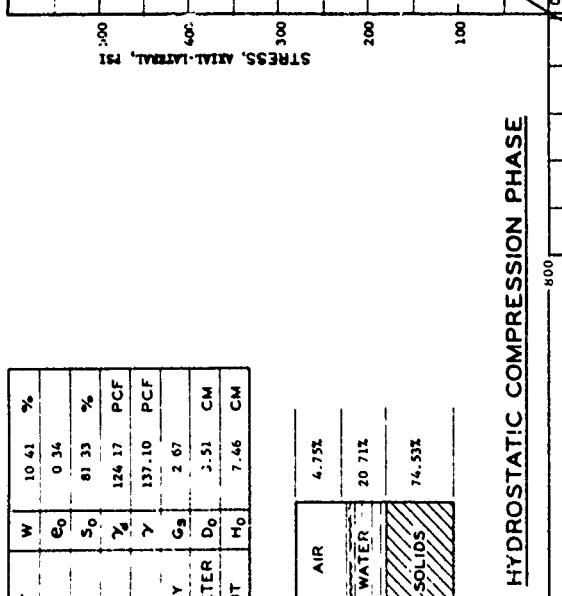
| | | | |
|----------------------------------|------------------|-----|----|
| PROJECT | G- Tech 3-602: | | |
| Contract No. | DACAS9-67-C-0051 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | 126 | |
| DEPTH EL | DATE | | |
| LL | PL | 15 | P1 |
| | | | 12 |
| DESCRIPTION McCarrick Ranch Sand | | | |
| Triaxial-Cyclic Shear @ 75% | | | |



100

STRESS, AXIAL-LATERAL, PSI

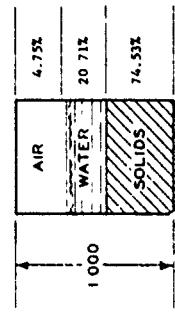
STRAIN, AXIAL-LATERAL, PERCENT



100

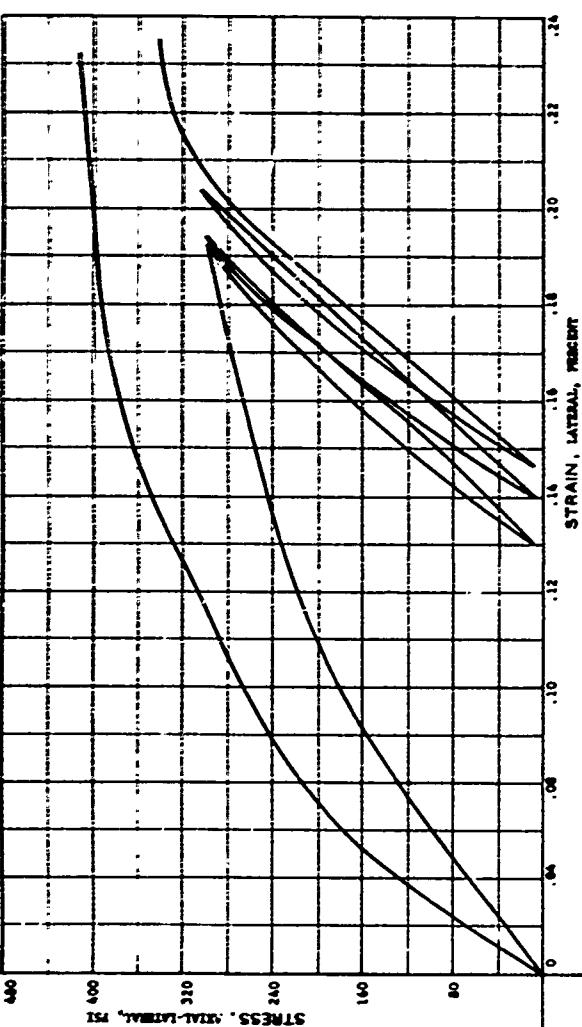
HYDROSTATIC PRESSURE, P, PSI

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.41 | % |
| VOID RATIO | e ₀ | 0.34 | |
| SATURATION | s ₀ | 81.33 | % |
| DRY DENSITY | γ_d | 126.17 | pcf |
| WET DENSITY | γ_w | 137.10 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.51 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.46 | cm |

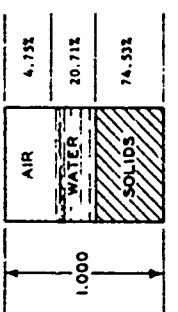


| | | | |
|---|----------------|----|----|
| PROJECT Georgia Institute of Technology B-602 | | | |
| Contract No. DMAE39-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 128 | | |
| DEPTH | DATE | | |
| EL | LL | PL | P1 |
| 2, | 15 | 12 | |
| DESCRIPTION McCormick Ranch Sand | | | |
| Triaxial, Cyclic Q 75%. | | | |
| Lateral Pressure, 800 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



HYDROSTATIC COMPRESSION PHASE



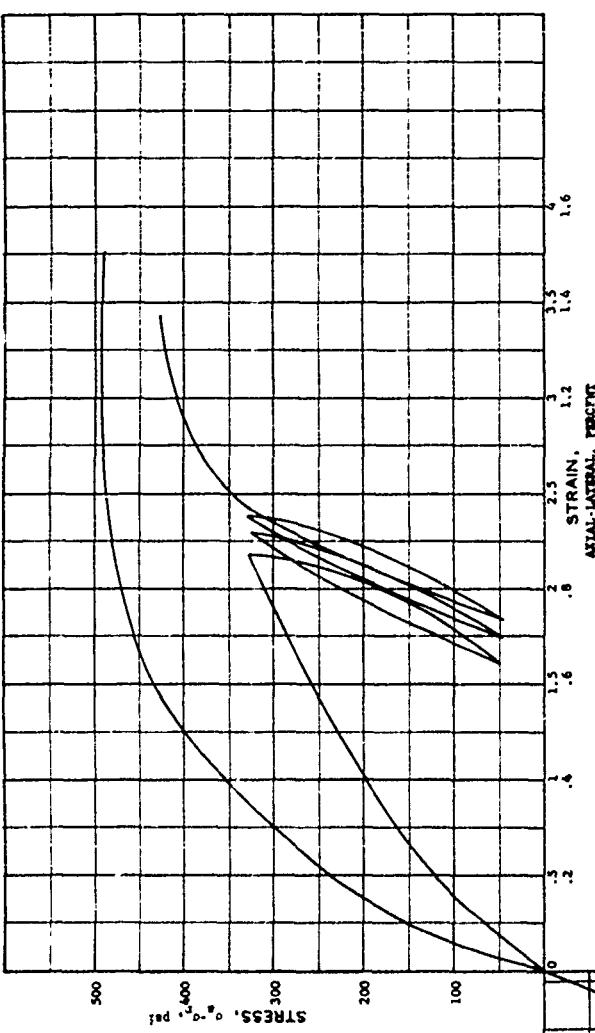
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.61 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S | 61.33 % |
| DRY DENSITY | γ_d | 124.17 PCF |
| WET DENSITY | γ_w | 137.10 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.46 CM |

HYDROSTATIC PRESSURE, P, PSI

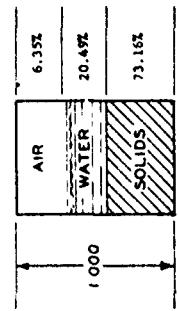
107

| | |
|---|----------------|
| PROJECT Georgia Institute of Technology I-502 | |
| Contract No. DA-CA-39-67-C-0021 | |
| AREA | |
| BORING NO. | SAMPLE NO. 128 |
| DEPTH EL. | DATE |
| LL 27 | PL 15 |
| | P1 12 |
| DESCRIPTION McCormick Ranch, Sand | |
| Initial Cycle 0.25% | |
| Lateral Pressure, 800 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



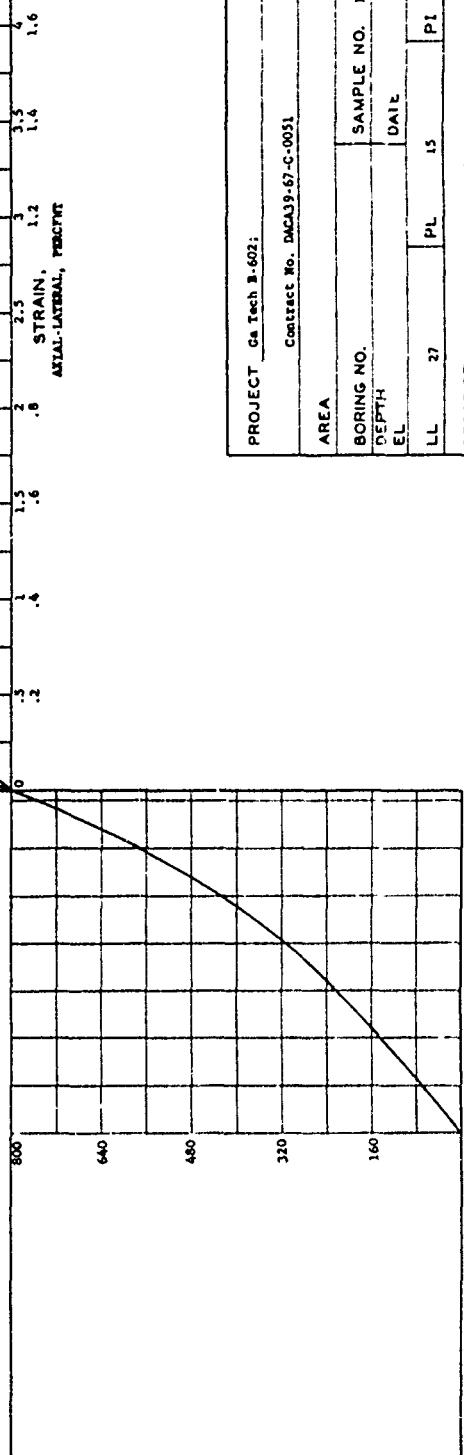
HYDROSTATIC COMPRESSION PHASE



| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.49 | % |
| VOID RATIO | e_0 | 0.37 | |
| SATURATION | S_o | 76.33 | % |
| DRY DENSITY | γ_d | 121.88 | pcf |
| WET DENSITY | γ | 134.67 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.50 | cm |
| SPECIMEN HEIGHT | H_0 | 7.72 | cm |

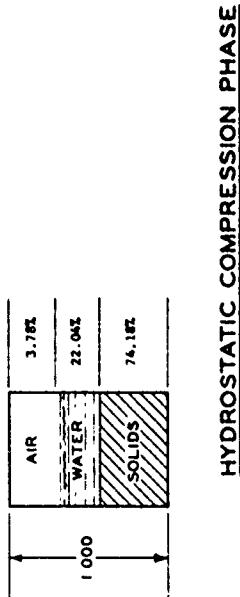
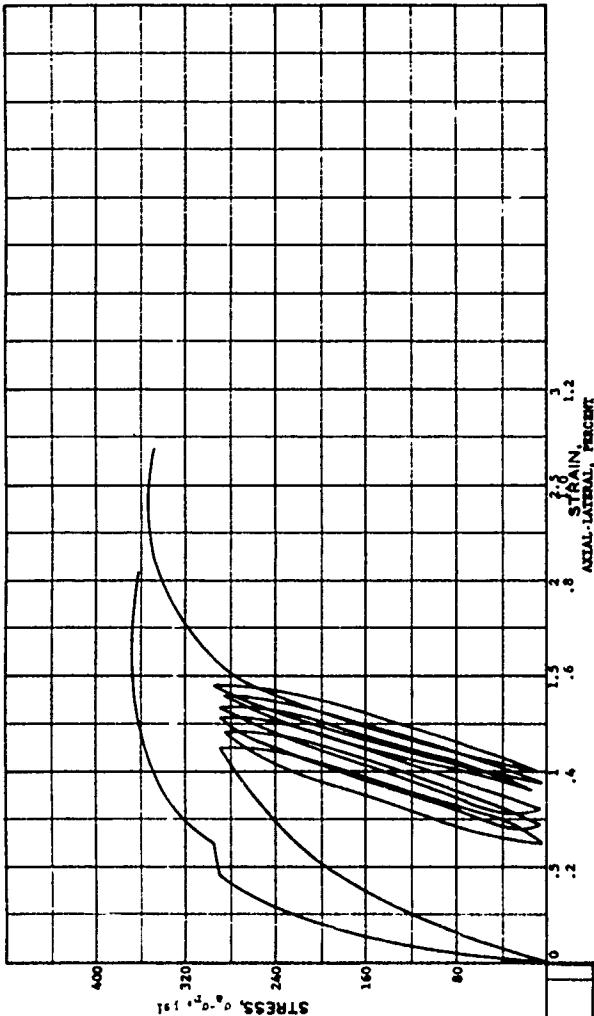
80T

HYDROSTATIC PRESSURE, P, PSI



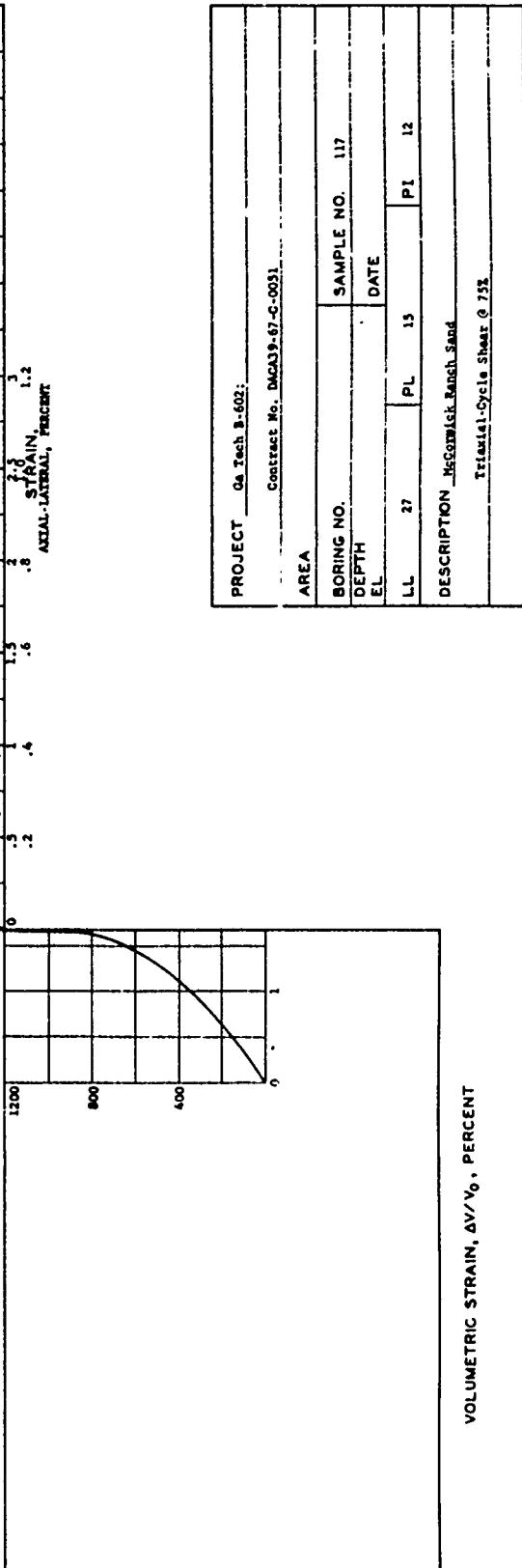
| | |
|----------------------------------|----------------|
| PROJECT | Ga Tech B-602; |
| Contract No. DACA39-67-C-0051 | |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. |
| DEPTH | DATE |
| EL | |
| LL | PL |
| | IS |
| | P1 |
| | 12 |
| DESCRIPTION McCormick Ranch Sand | |
| Triaxial-Cyclic Shear @ 75% | |

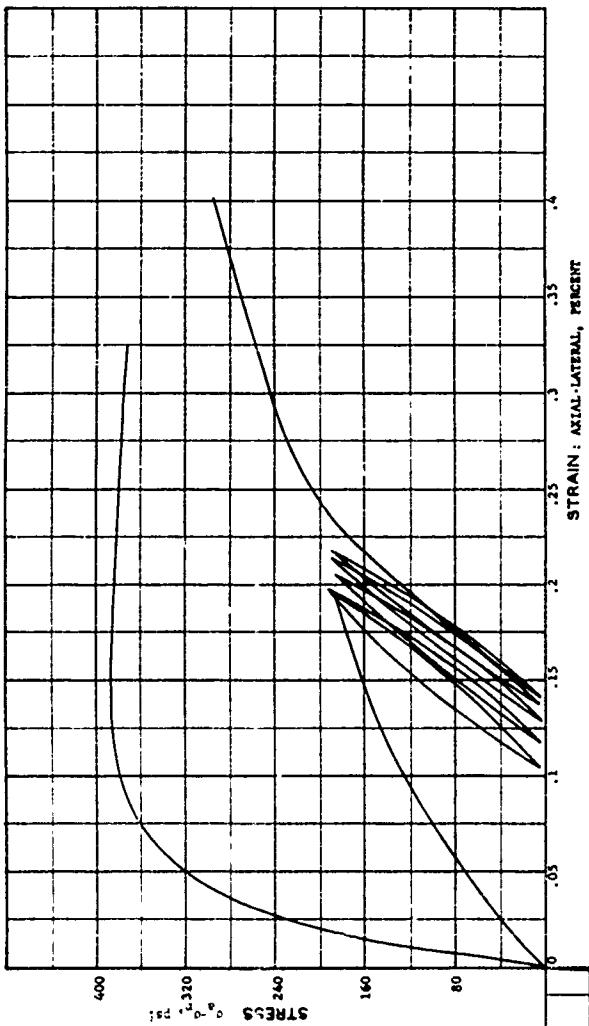
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.13 | % |
| VOID RATIO | e_0 | 0.35 | |
| SATURATION | S_o | 85.36 | % |
| DRY DENSITY | γ_d | 123.59 | pcf |
| WET DENSITY | γ' | 137.34 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.48 | cm |



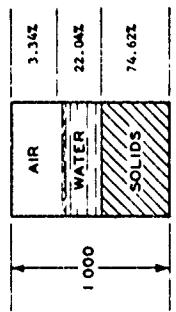
HYDROSTATIC PRESSURE, P, PSI

109





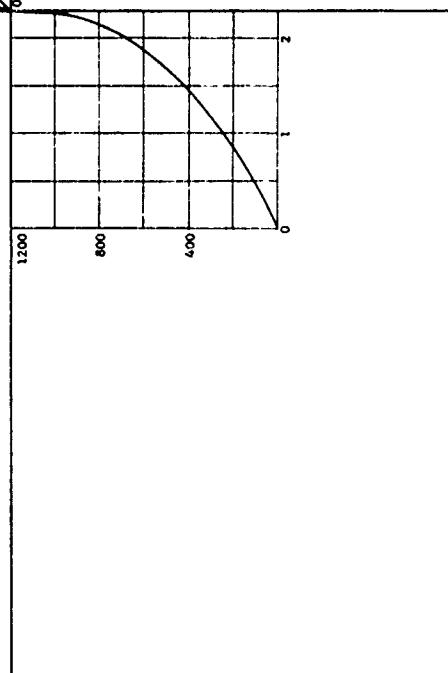
HYDROSTATIC COMPRESSION PHASE



| | | |
|-------------------|----------------|------------|
| WATER CONTENT | w | 11.06 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | S ₀ | 66.06 % |
| DRY DENSITY | D ₀ | 124.12 PCF |
| WET DENSITY | D _w | 139.08 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D _o | 3.49 CM |
| SPECIMEN HEIGHT | H _o | 7.49 CM |

HYDROSTATIC PRESSURE, P, PSI

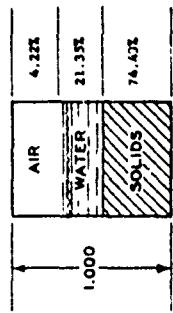
110



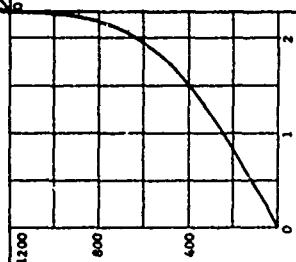
| | | | |
|---|----------------|-----|-------|
| PROJECT Georgia Institute of Technology 8-602 | | | |
| Contract No. DMAA39-67-C-0031 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 119 | | |
| DEPTH | DATE | | |
| EL. | PL | :15 | P1 12 |
| DESCRIPTION McCormick Ranch Sand | | | |
| Initial-Circle Shear 2.75% | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.75 | % |
| VOID RATIO | e_0 | 0.34 | |
| SATURATION | S_0 | 83.50 | % |
| DRY DENSITY | γ_d | 126.00 | pcf |
| WET DENSITY | γ | 137.32 | pcf |
| GRAVITIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.51 | cm |
| SPECIMEN HEIGHT | H_0 | 7.47 | cm |

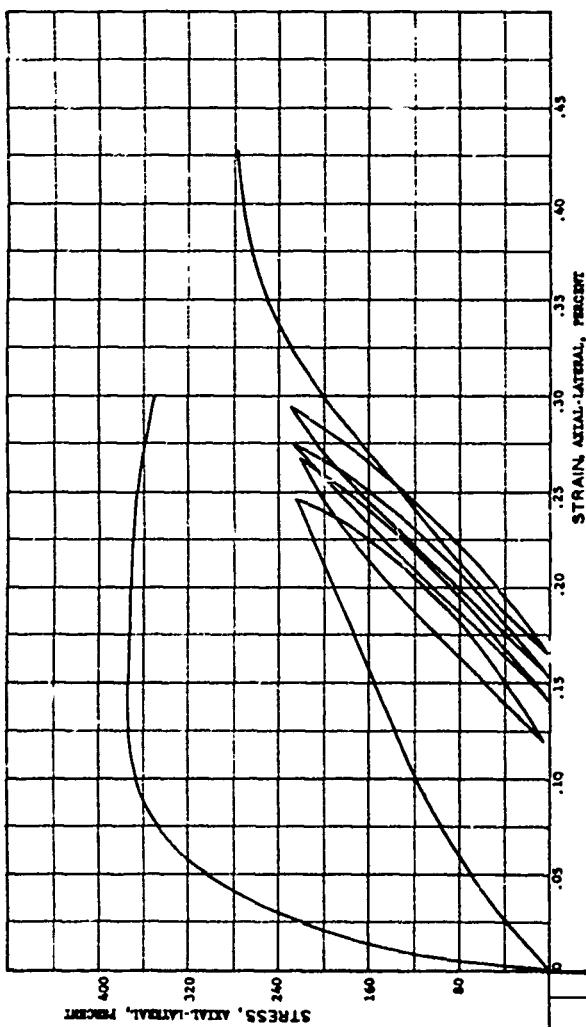


HYDROSTATIC COMPRESSION PHASE



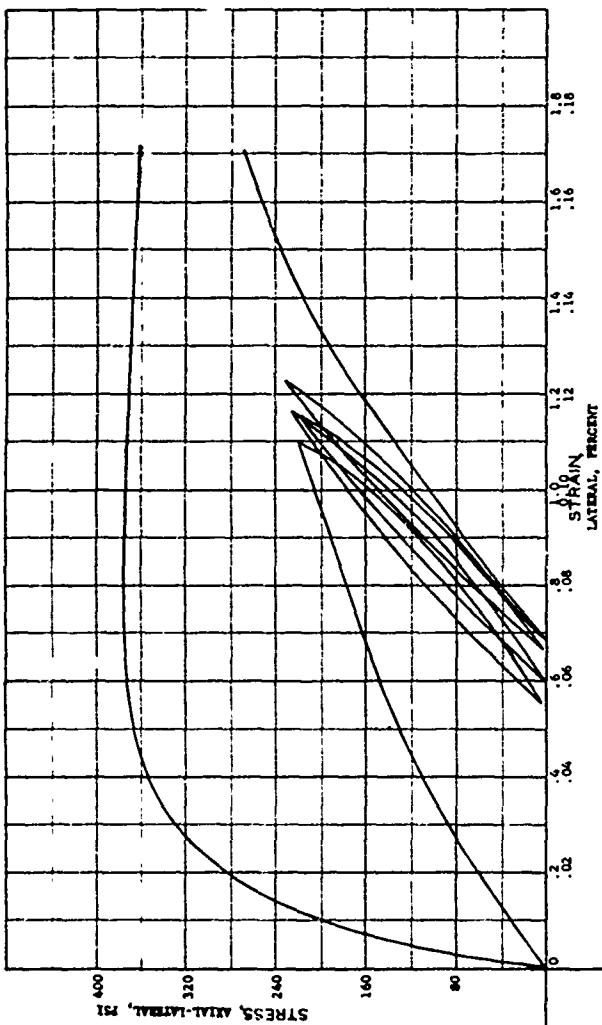
HYDROSTATIC PRESSURE, P, PSI

111

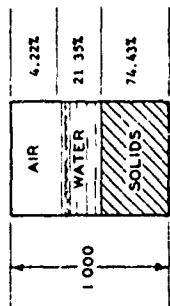


| | |
|--------------|---------------------------------------|
| PROJECT | Georgia Institute of Technology 1.432 |
| Contract No. | DACAS9-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 124 |
| DEPTH | DATE |
| EL. | |
| LL | PL 15 P1 12 |
| DESCRIPTION | McComb Ranch Sand |
| | Triaxial Test Cycles @ 15% |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.75 % |
| VOID RATIO | e_0 | 0.36 |
| SATURATION | S_0 | 83.50 % |
| DRY DENSITY | γ_d | 124.00 PCF |
| WET DENSITY | γ | 137.32 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_0 | 3.51 CM |
| SPECIMEN HEIGHT | H_0 | 7.47 CM |



HYDROSTATIC COMPRESSION PHASE

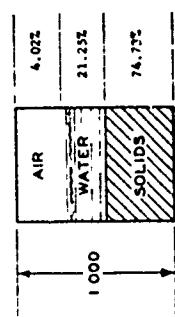
HYDROSTATIC PRESSURE, P, PSI

112

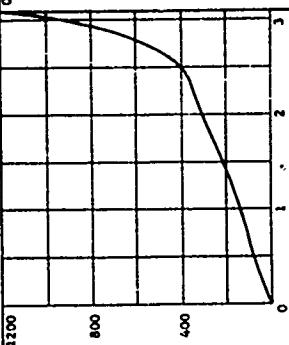
| | |
|---|----------------|
| PROJECT: General Institute of Technology, B-602 | |
| Contract No.: DACA12-62-C-0021 | |
| AREA: | |
| BORING NO. | SAMPLE NO. 124 |
| DEPTH EL. | DATE |
| LL | PL 15 |
| | P1 12 |
| DESCRIPTION: McCormick Ranch Sand | |
| TESTS: Test Grav. & T.S. | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|------------|
| WATER CONTENT | w | 10.65 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 84.11 % |
| DRY DENSITY | γ_d | 124.50 PCF |
| WET DENSITY | γ | 137.76 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.49 CM |
| SPECIMEN HEIGHT | H_o | 7.54 CM |

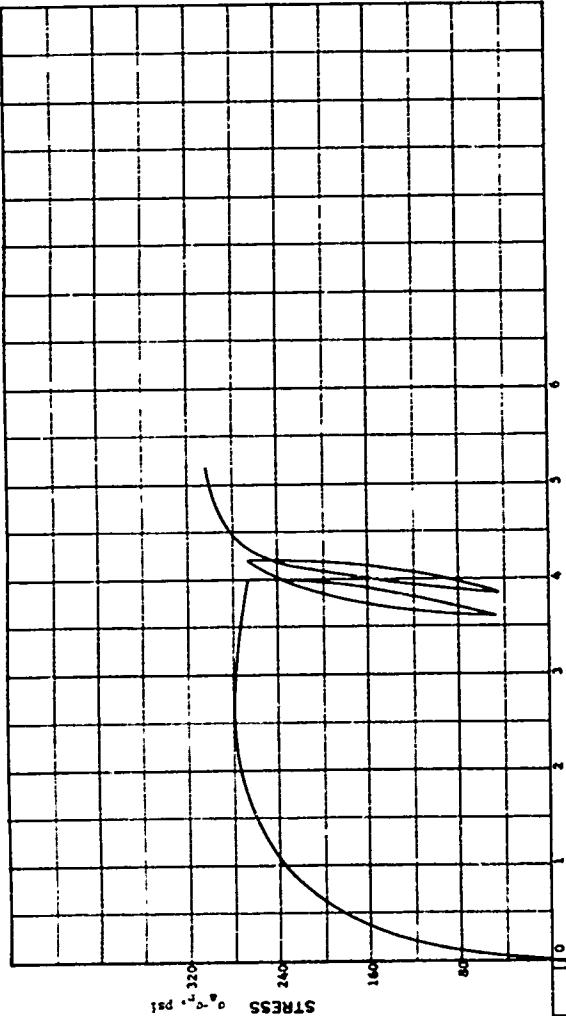


HYDROSTATIC COMPRESSION PHASE



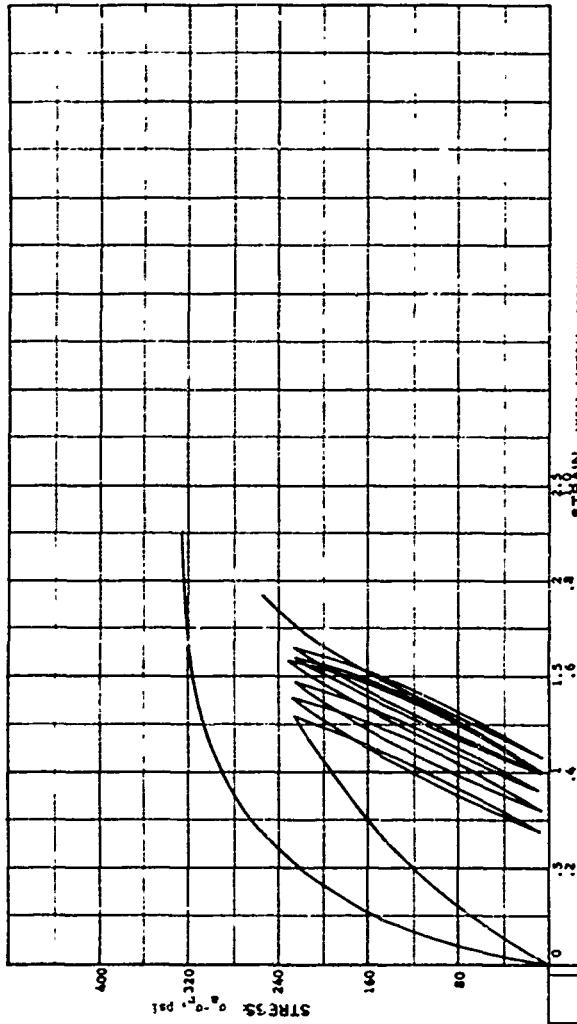
HYDROSTATIC PRESSURE, P, PSI

113

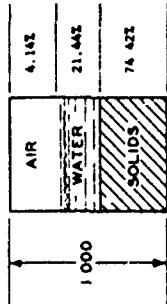


| | |
|----------------------------------|----------------|
| PROJECT | Ge Tech B-9021 |
| Contract No. DMAA9-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 144 |
| DEPTH | DATE |
| EL | |
| LL | P.L. 15 |
| | P1 12 |
| DESCRIPTION McConalik Ranch Sand | |
| Triaxial-Cycle Shear @ 75% | |

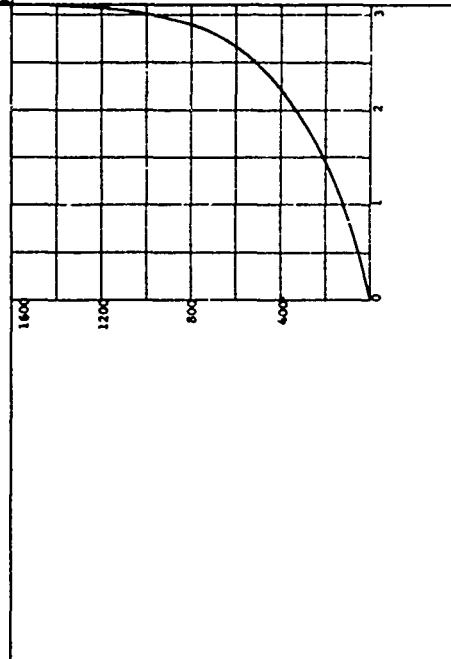
VOLMETRIC STRAIN, ΔV/V₀, PERCENT



| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.79 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_o | 83.80 | % |
| DRY DENSITY | γ_d | 123.99 | pcf |
| WET DENSITY | γ | 137.36 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.51 | cm |
| SPECIMEN HEIGHT | H_0 | 7.53 | cm |



HYDROSTATIC COMPRESSION PHASE



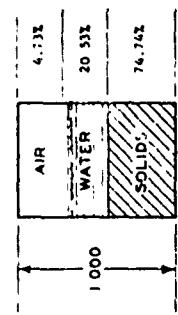
HYDROSTATIC PRESSURE, P , PSI

114

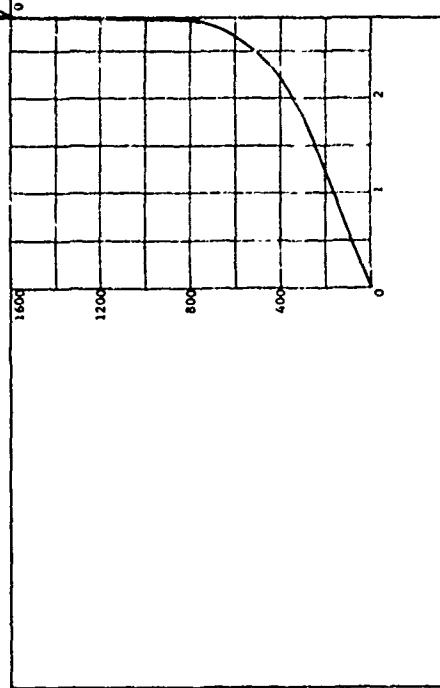
| | | | |
|----------------------------------|---------------------------------|----|----|
| PROJECT | Georgia Institute of Technology | | |
| Contract No. DCA39-67-C-0091 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 102 | | |
| DEPTH | DATE | | |
| EL. | | | |
| LL | 27 | PL | 15 |
| | | PI | 12 |
| DESCRIPTION McCormick Marsh Sand | | | |
| Triaxial Cycle Shear @ 12% | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

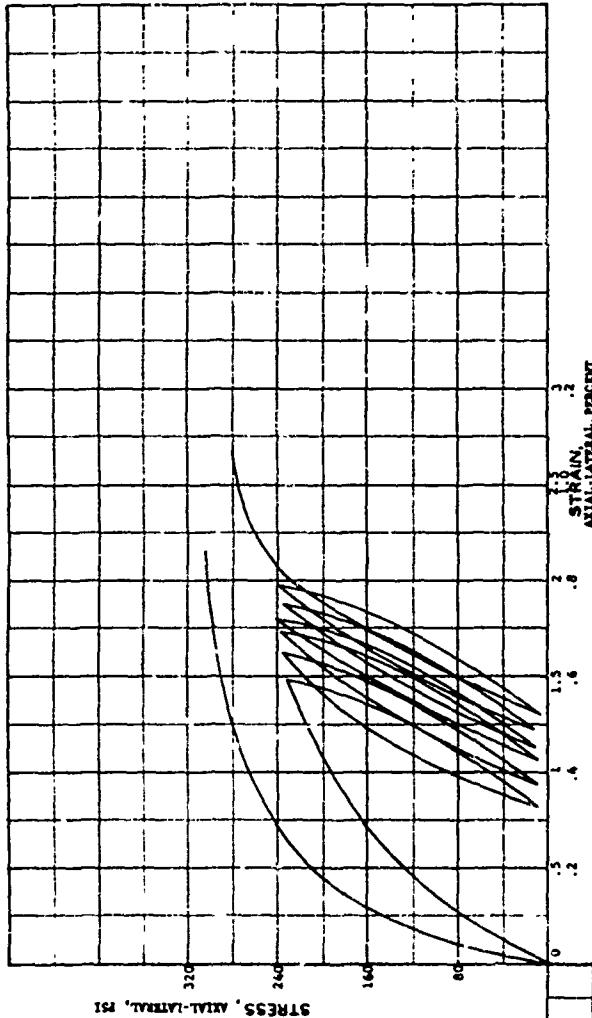
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | w | 10.29 % |
| VOID RATIO | e ₀ | 0.36 |
| SATURATION | s ₀ | 81.29 % |
| DRY DENSITY | γ_d | 124.52 PCF |
| WET DENSITY | γ_w | 137.33 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.33 CM |



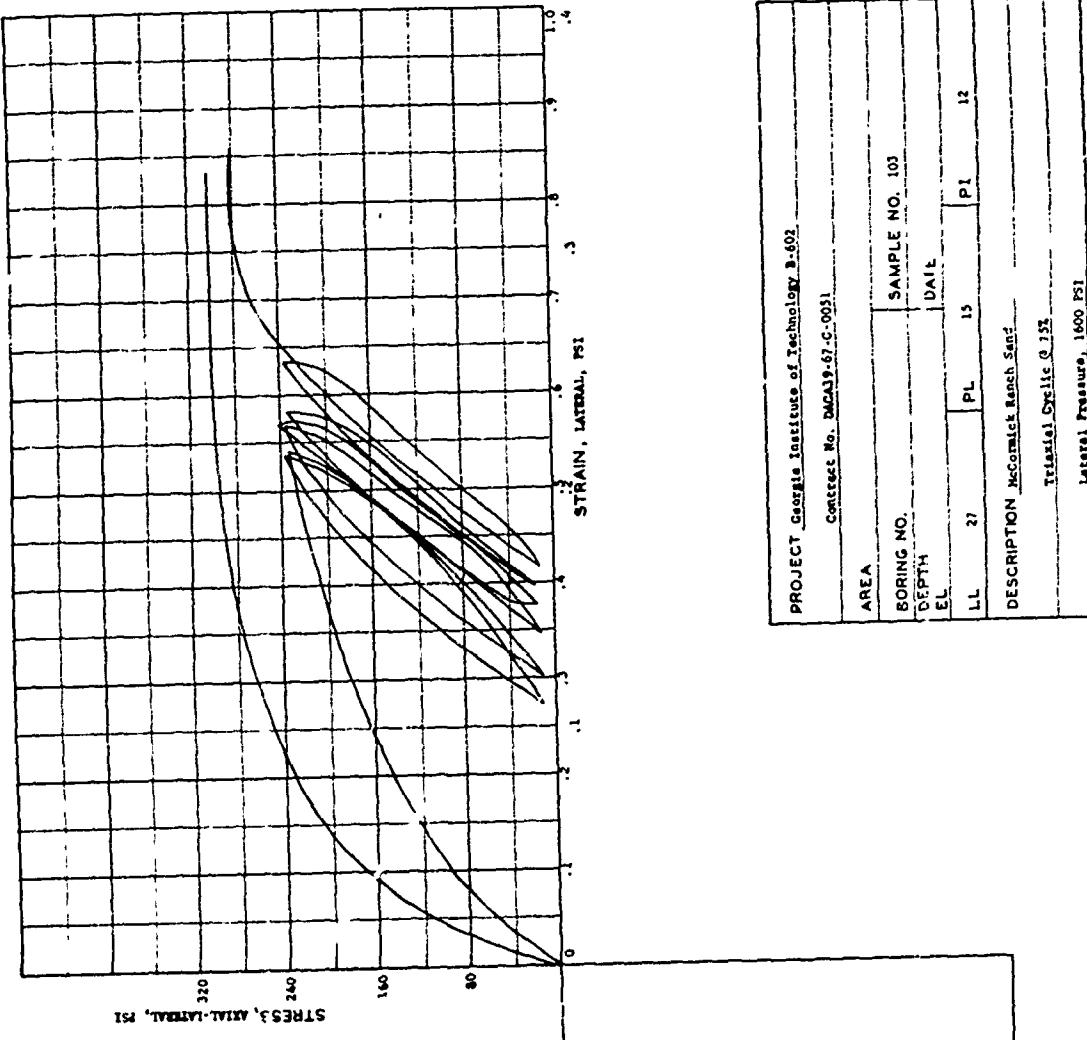
HYDROSTATIC COMPRESSION PHASE



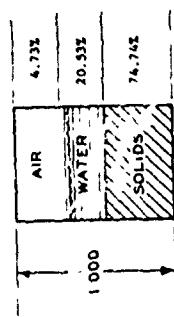
115



| | |
|---|----------------|
| PROJECT: Seagate Institute of Technology, B. 602. | |
| Contract No. DACA9-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 103 |
| DEPTH EL | DATE |
| LL 27 | PL 15 PI 12 |
| DESCRIPTION: Mission Ranch Sand | |
| Triaxial Cyclic @ 75% | |
| Lateral Pressure, 1000 psi | |



| | | |
|-------------------|------------|------------|
| WATER CONTENT | w | 10.29 % |
| VOID RATIO | e_0 | ~34 |
| SATURATION | S_s | 81.28 % |
| DRY DENSITY | γ_d | 125.52 PCF |
| WET DENSITY | γ | 137.33 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 CM |
| SPECIMEN HEIGHT | H_o | 7.53 CM |

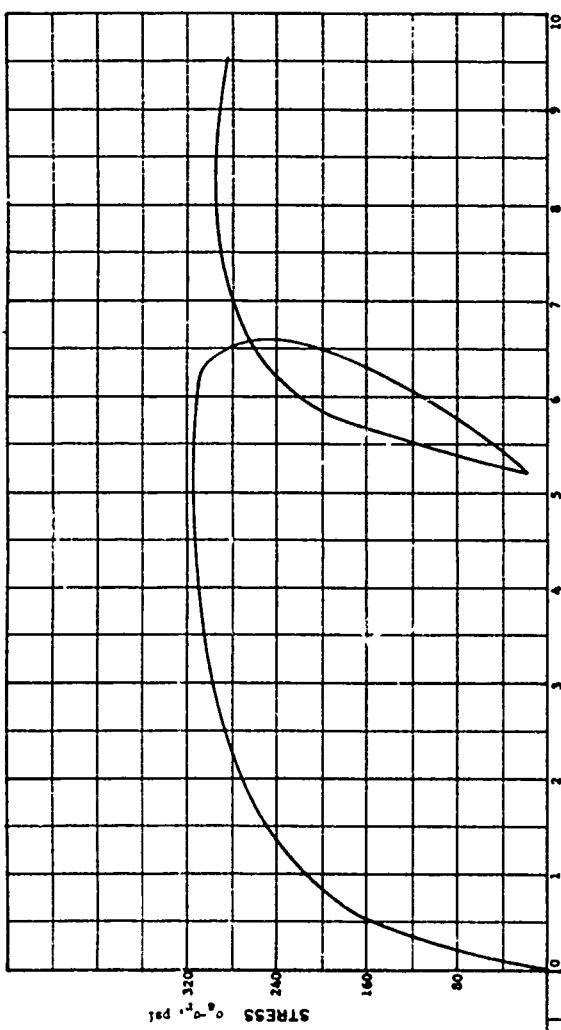
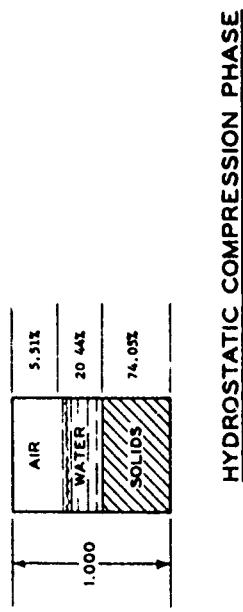


HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

| | | |
|--|-----------------------|------|
| PROJECT <u>Georgia Institute of Technology B-602</u> | | |
| Contract No. <u>DA-39-67-0-0051</u> | | |
| AREA | SAMPLE NO. <u>103</u> | DATE |
| | | |
| DEPTH | | |
| EL. | 27 | PL |
| LL. | | 15 |
| | | P1 |
| | | 12 |
| DESCRIPTION <u>McCormick Ranch Sand</u> | | |
| Trilateral Drills @ 152 | | |
| Lateral Pressure, 1600 PSI | | |

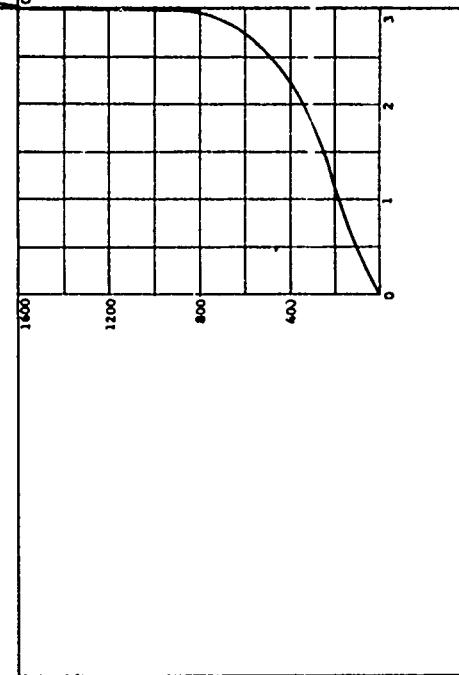
| | | |
|---------------------------------------|----------------|------------|
| WATER CONTENT | W | 10.34 % |
| VOID RATIO | e ₀ | 0.35 |
| SATURATION | s ₀ | 78.78 % |
| DRY DENSITY | γ_d | 123.37 PCF |
| WET DENSITY | γ | 136.13 PCF |
| — [—] T _c GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.52 CM |



HYDROS. ATIC PRESSURE, P, PSI

117

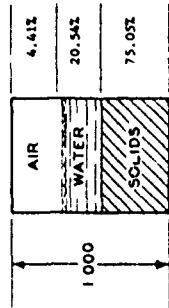
STRAIN : AXIAL-LATERAL, PERCENT



VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

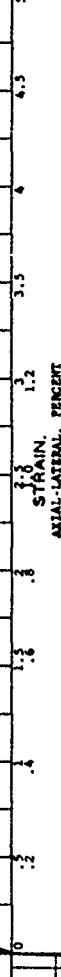
| | |
|--|-----------------------|
| PROJECT <u>Ge-Tech B-602;</u> | |
| Contract No. <u>DCR19-67-2-0031</u> | |
| AREA _____ | |
| BORING NO. | SAMPLE NO. <u>140</u> |
| DEPTH EL | DATE _____ |
| L.L. <u>27</u> | P.L. <u>15</u> |
| | P1. <u>12</u> |
| DESCRIPTION <u>M-Conekt Bench Sand</u> | |
| <u>Triaxial-Cyclic Shear @ 75%</u> | |

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.25 % |
| VOID RATIO | e_0 | 0.33 |
| SATURATION | S_o | 82.33 % |
| DRY DENSITY | γ_d | 125.04 PCF |
| WET DENSITY | γ | 137.06 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 CM |
| SPECIMEN HEIGHT | H_o | 7.55 CM |

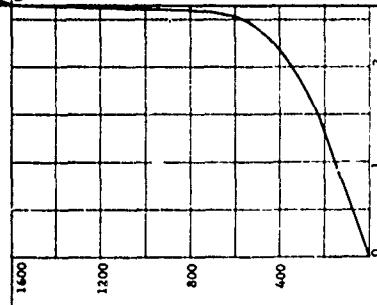


HYDROSTATIC COMPRESSION PHASE

118



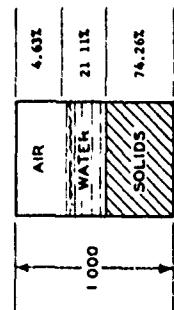
HYDROSTATIC PRESSURE, P, PSI



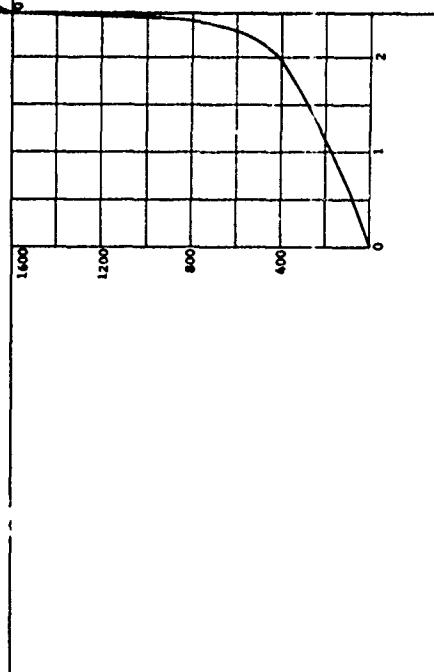
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------------------|---------------------------------------|----|-------|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. | DACA19-67-C-0051 | | |
| | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO 141 | | |
| DEPTH | DATE | | |
| EL | | | |
| LL | PL | 15 | P1 12 |
| DESCRIPTION McCosh Ranch Sand | | | |
| Triaxial-Cycle Shear 2.75% | | | |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 10.65 % |
| VOID RATIO | e ₀ | 0.35 |
| SATURATION | S ₀ | 82.02 % |
| DRY DENSITY | γ_d | 123.72pcf |
| WET DENSITY | γ | 136.89pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 cm |
| SPECIMEN HEIGHT | H ₀ | 7.55 cm |

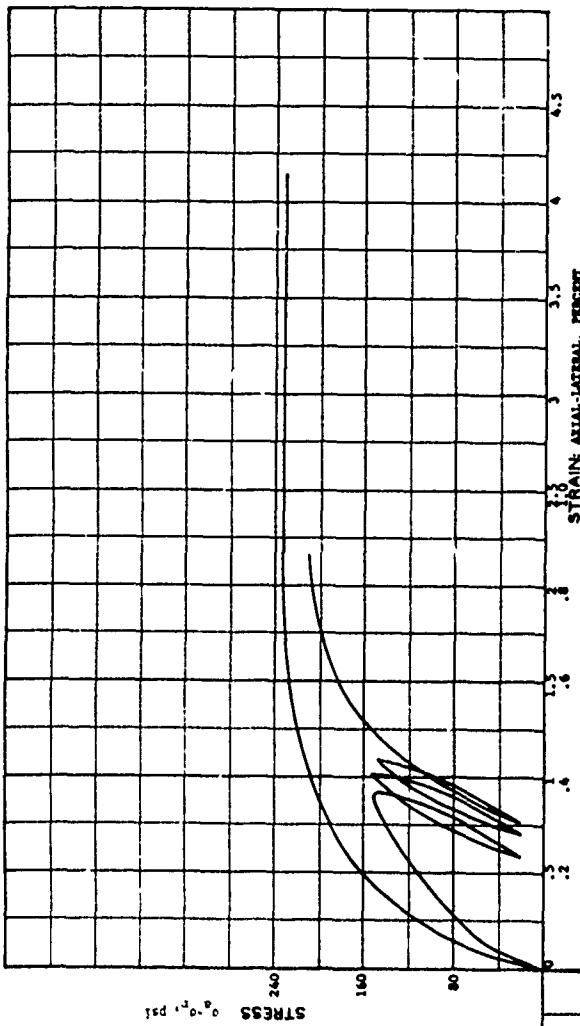


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, p, PSI

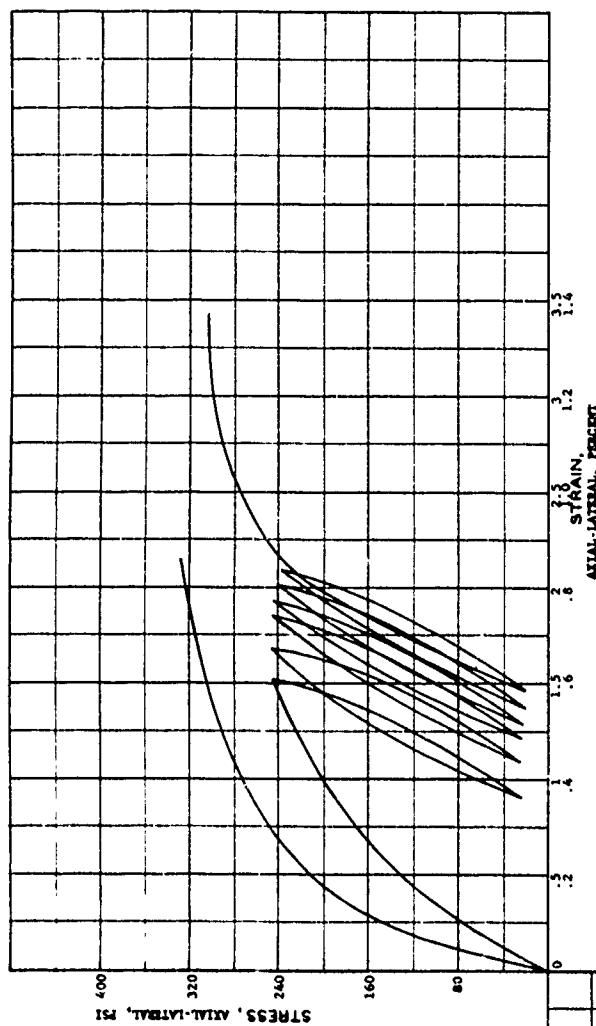
119



STRAIN, AXIAL-LATERAL, PERCENT

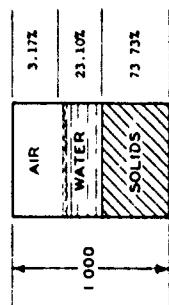
| | | | |
|----------------------------|---------------------------------------|-----|----|
| PROJECT | Georgia Institute of Technology I-492 | | |
| Contract No. | DMC139-67-C-0031 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | 148 | |
| DEPTH | DATE | | |
| EL. | | | |
| LL | P.L. | 15 | P1 |
| | | | 12 |
| DESCRIPTION | | | |
| McConieck Ranch Sand | | | |
| Triaxial-Cycle Shear @ 75% | | | |

VOLUMETRIC STRAIN, $\delta V/V$, PERCENT



STRESS, AXIAL-LATERAL, PSI

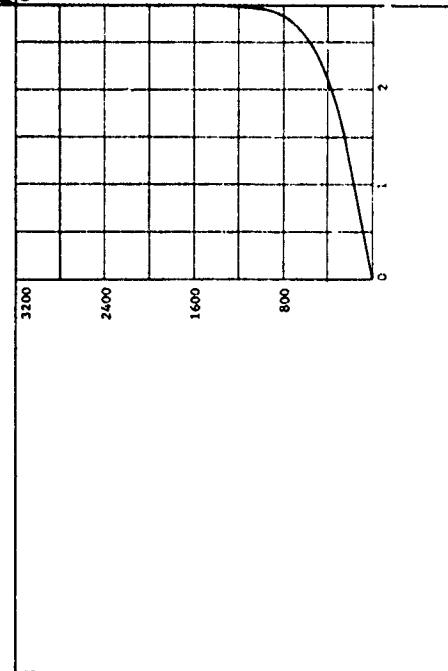
HYDROSTATIC COMPRESSION PHASE



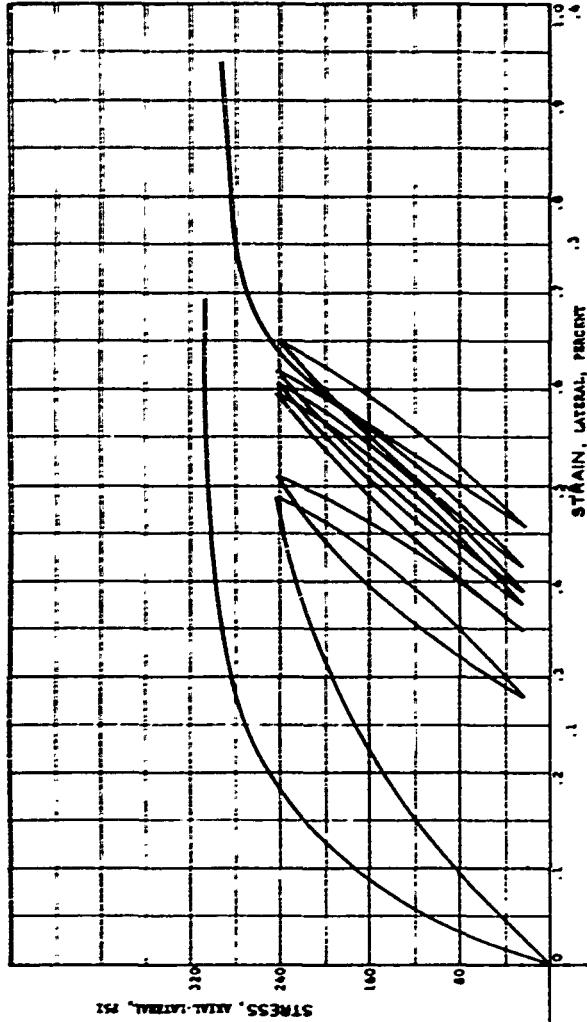
| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 11.73 % |
| VOID RATIO | e_0 | 0.16 |
| SATURATION | S_0 | 87.94 % |
| DRY DENSITY | γ_d | 122.85 PCF |
| WET DENSITY | γ | 137.26 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_0 | 3.51 CM |
| SPECIMEN HEIGHT | H_0 | 7.52 CM |

120

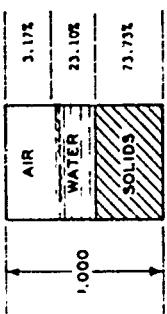
HYDROSTATIC PRESSURE, P , PSI



| PROJECT Georgia Institute of Technology S-602 | |
|---|---------------|
| Contract No. DACA39-67-C-0051 | |
| AREA | |
| BORING NO | |
| DEPTH | SAMPLE NO 104 |
| EL | 0, 1% |
| LL | PL 15 P1 12 |
| DESCRIPTION McCormick Ranch Sand | |
| Triaxial Cyclic @ 75% | |
| Lateral Pressure, 1200 psi | |



| | |
|-------------------|------------------------|
| WATER CONTENT | 11.2% |
| VOID RATIO | 0.35 |
| SATURATION | 67.4% |
| DRY DENSITY | 7.0 |
| WET DENSITY | 12.13 PCF |
| SPECIFIC GRAVITY | 1.31 |
| SPECIMEN DIAMETER | D ₀ 2.67 |
| SPECIMEN HEIGHT | H ₀ 7.32 CM |



HYDROSTATIC COMPRESSION PHASE

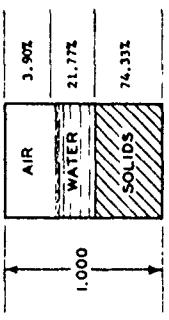
HYDROSTATIC PRESSURE, P, PSI

121

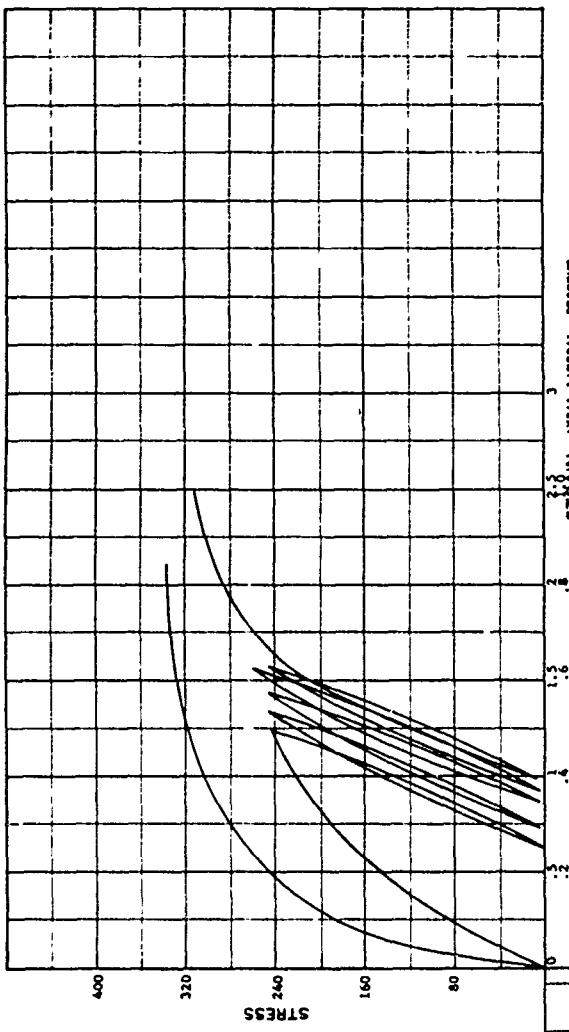
| | |
|---|------------------------|
| PROJECT Georgia Institute of Technology B-692 | |
| Contract No. DACA19-61-C-0031 | |
| AREA | |
| BORING NO. DEPTH EL. | SAMPLE NO. 104 DATE |
| LL 27 | PL 15 |
| | PI 12 |
| DESCRIPTION McClellan Ranch Sand | |
| Transect C-238 | |
| Lateral Pressure, 3200 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.97 | % |
| VOID RATIO | e_0 | 0.35 | |
| SATURATION | S_o | 84.81 | % |
| DRY DENSITY | γ_d | 123.83 | pcf |
| WET DENSITY | γ | 137.42 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.53 | cm |

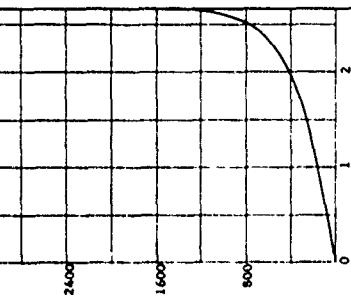


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

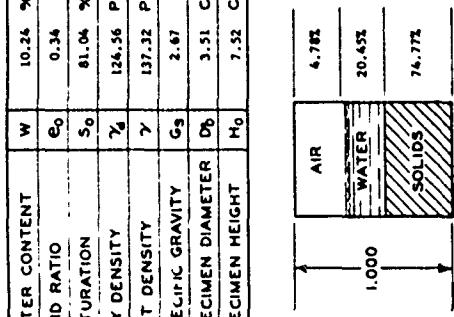
122



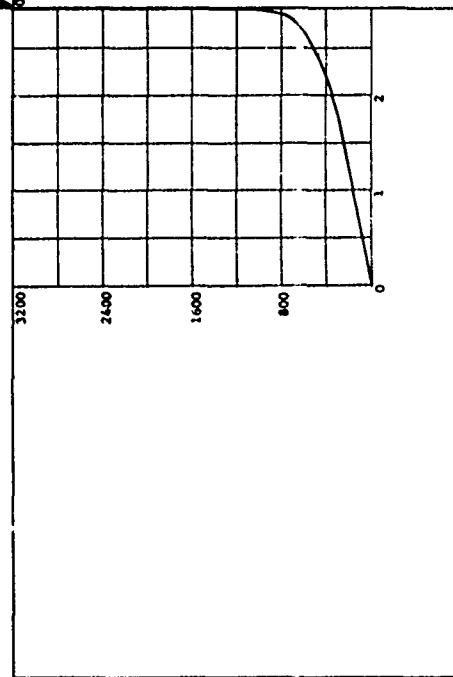
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | |
|---|-----------------|
| PROJECT Georgia Institute of Technology S-602 | |
| Contact No. DDC-A19-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 103A |
| DEPTH | DATE |
| EL. | |
| LL | P.L. 15 P1 12 |
| DESCRIPTION McMichael Ranch Sand | |
| Triaxial-Cyclic Shear @ 75% | |

| | | |
|-------------------|------------|------------|
| WATER CONTENT | w | 10.24 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 81.04 % |
| DRY DENSITY | γ_d | 126.56 PCF |
| WET DENSITY | γ | 137.32 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_b | 3.51 CM |
| SPECIMEN HEIGHT | H_0 | 7.52 CM |

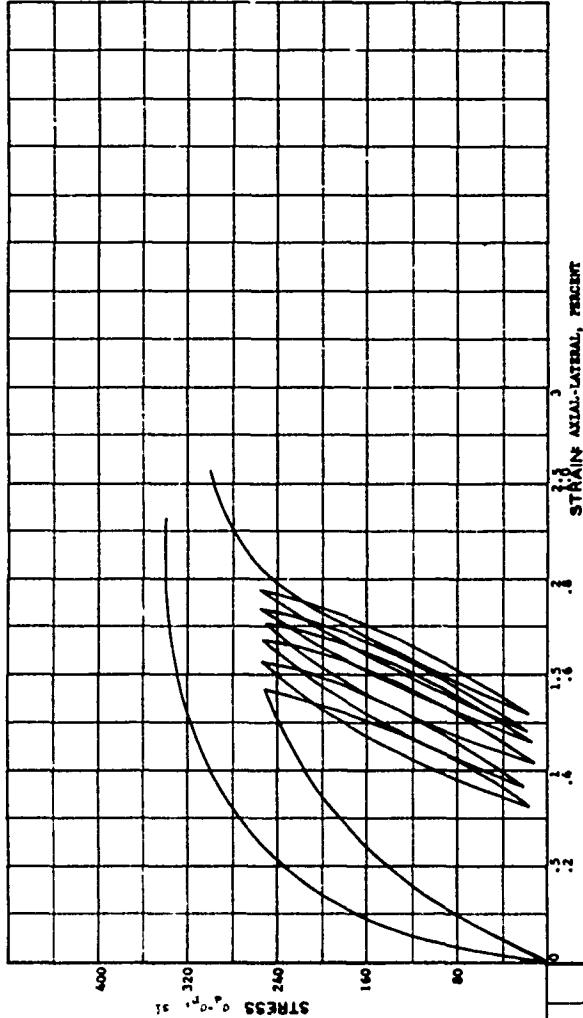


HYDROSTATIC COMPRESSION PHASE



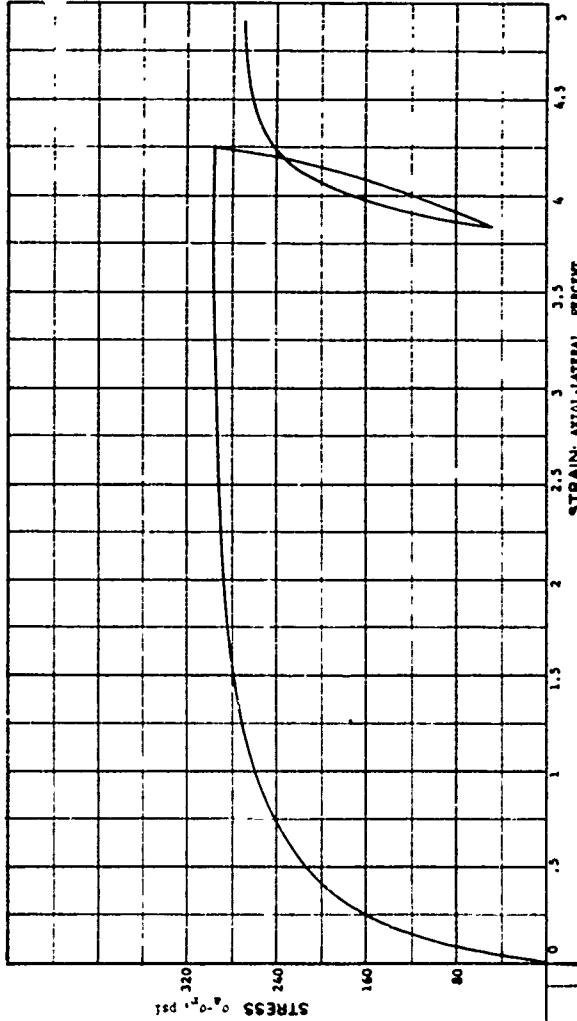
HYDROSTATIC PRESSURE, P, PSI

123

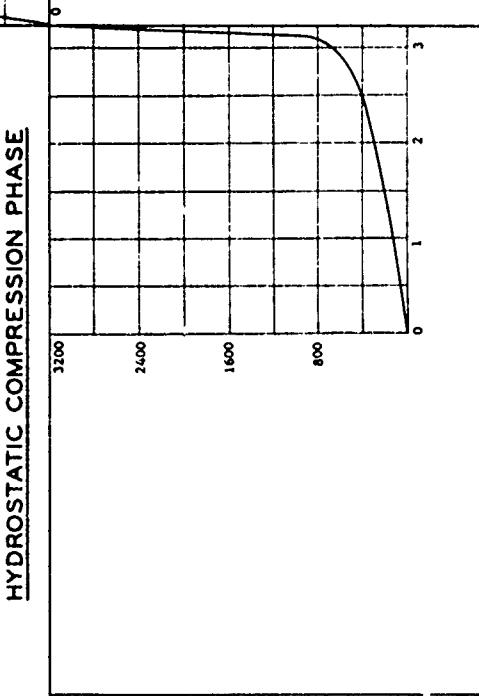
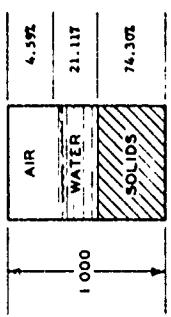


| | |
|--------------|---------------------------------------|
| PROJECT | Georgia Institute of Technology 8-602 |
| Contract No. | DACAS9-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 1058 |
| DEPTH EL | DATE |
| LL 27 | PL 15 |
| | P1 12 |
| DESCRIPTION | McCormick Ranch Sand |
| | Triaxial-Cycle Shear @ 75% |

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.64 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 82.15 % |
| DRY DENSITY | γ_d | 123.80pcf |
| WET DENSITY | γ | 136.97pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 CM |
| SPECIMEN HEIGHT | H_o | 7.52 CM |



HYDROSTATIC COMPRESSION PHASE

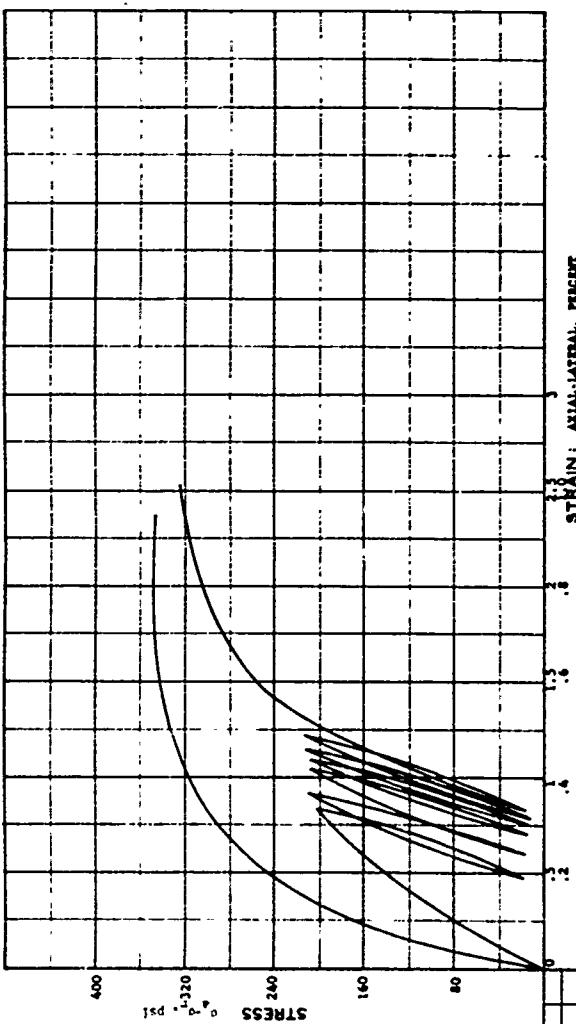
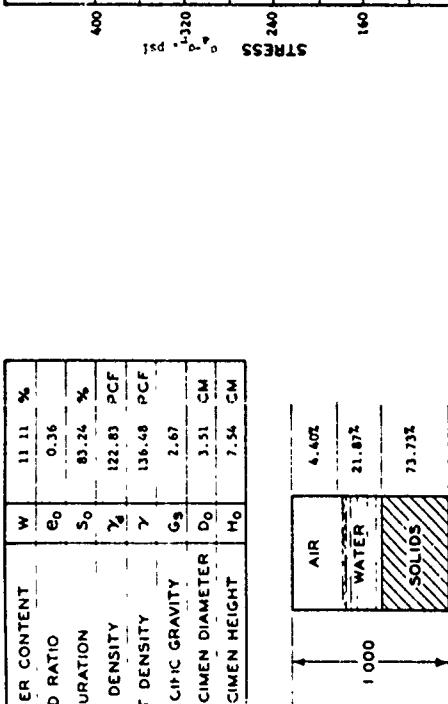


124

| | |
|---|----------------|
| PROJECT Gorilla Institute of Technology B-102 | |
| Contract No. PAGA9-616-9021 | |
| AREA | |
| BORING NO | SAMPLE NO. 137 |
| DEPTH EL | DATE |
| LL | PL 15 P1 12 |
| DESCRIPTION McCorle Ranch Sand | |
| Triaxial-Cyclic Shear 2 75% | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

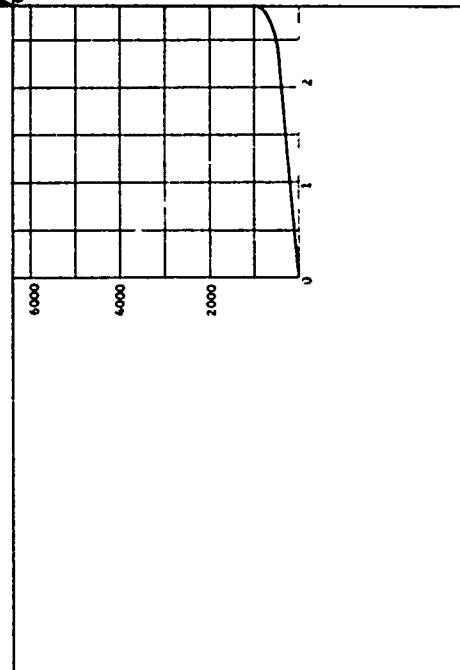
| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 11.11 % |
| VOID RATIO | e ₀ | 0.36 |
| SATURATION | s ₀ | 93.74 % |
| DRY DENSITY | γ_d | 122.83pcf |
| WET DENSITY | γ | 136.48pcf |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 cm |
| SPECIMEN HEIGHT | H ₀ | 7.54 cm |



HYDROSTATIC PRESSURE, P, PSI

125

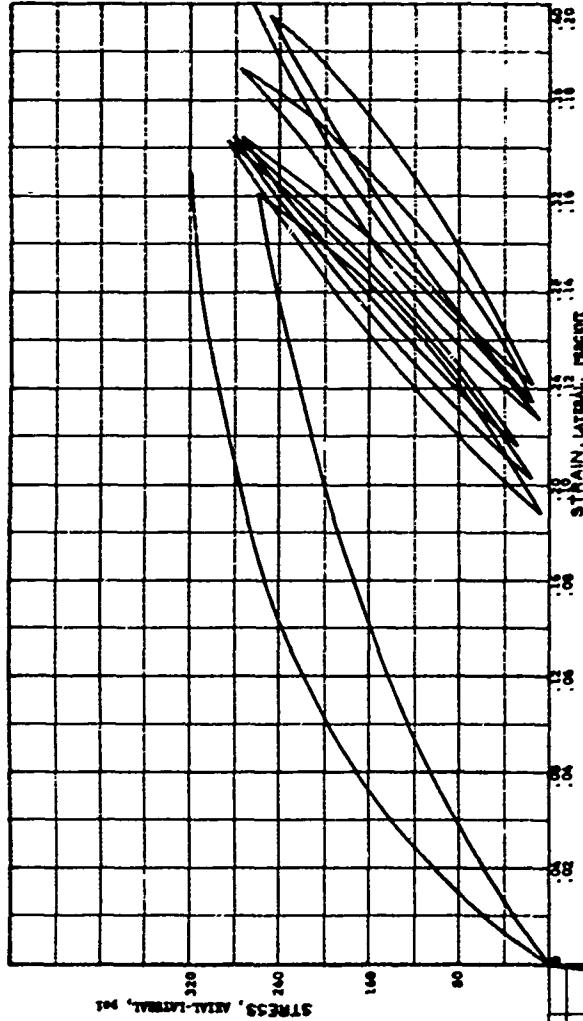
STRAIN: AXIAL-LATERAL, PERCENT



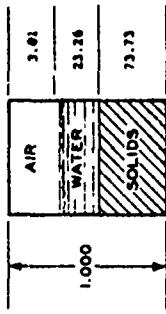
VOLUMETRIC STRAIN, $\Delta V / V_0$, PERCENT

| | |
|--|---------------|
| PROJECT - Geotechnical Institute of Technology, L.A. 602 | |
| Contract No. DMCA9-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 80 |
| DEPTH | DATE |
| EL | |
| LL | PL 13 |
| DESCRIPTION: McCutchan Ranch Sand | |
| Triaxial Cycle Shear Q 75% | |

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 11.82 % |
| VOID RATIO | e_0 | 0.36 |
| SATURATION | S_0 | 88.35 % |
| DRY DENSITY | γ_d | 122.04pcf |
| WET DENSITY | γ | 137.36pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.31 cm |
| SPECIMEN HEIGHT | H_o | 7.55 cm |

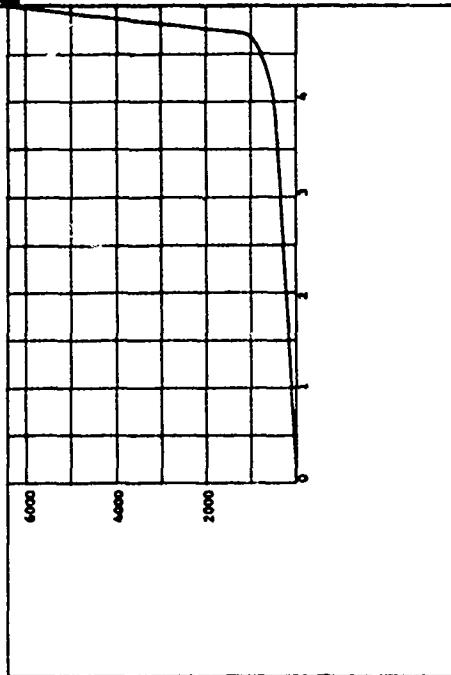


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

126



PROJECT: Geotextile Evaluation of Test Pavement B-972.
Contract No. D-20249-2-15-0021.

AREA:

BORING NO. _____ SAMPLE NO. #2

DEPTH

EL. _____

DATE _____

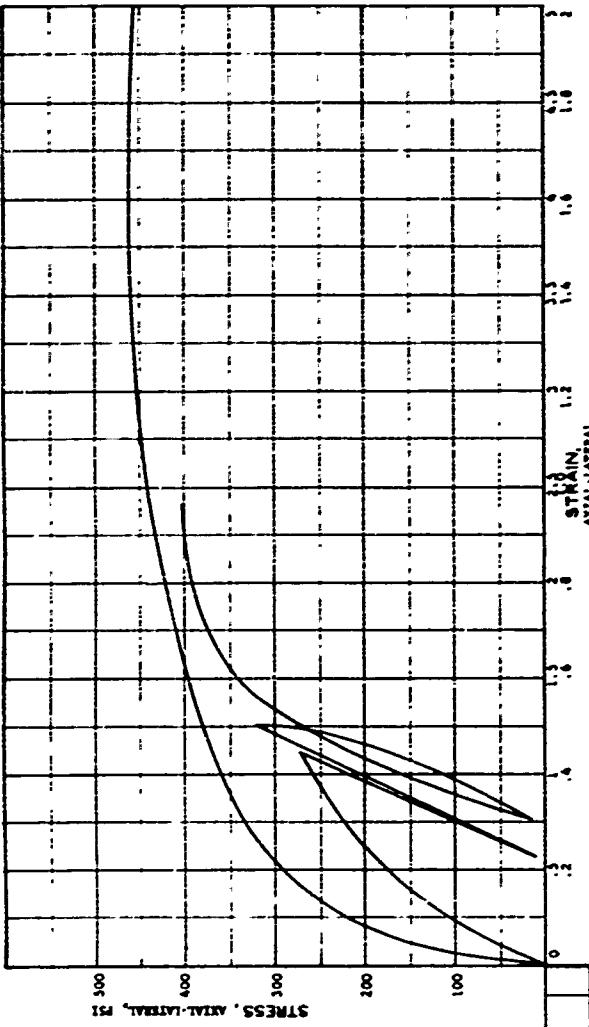
L.L. 27 PL 13 P1 12

DESCRIPTION: McGehee Ranch Sand

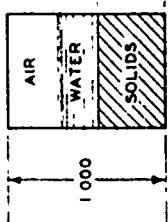
Triaxial Cycle 1/51

Lateral Pressure, 400 psi
Lateral Pressure, 400 psi

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.53 % |
| VOID RATIO | e ₀ | 0.35 |
| SATURATION | s ₀ | 61.03 % |
| DRY DENSITY | γ_d | 123.70 PCF |
| WET DENSITY | γ | 136.72 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.55 CM |

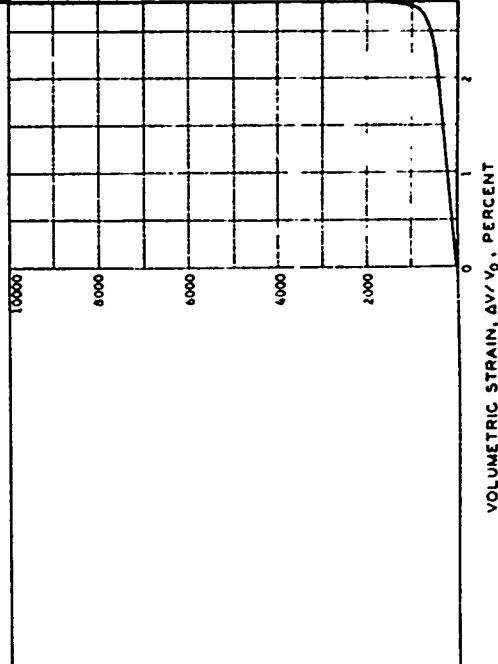


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

127

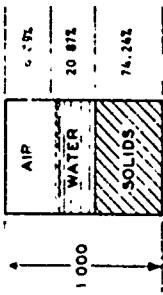


VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

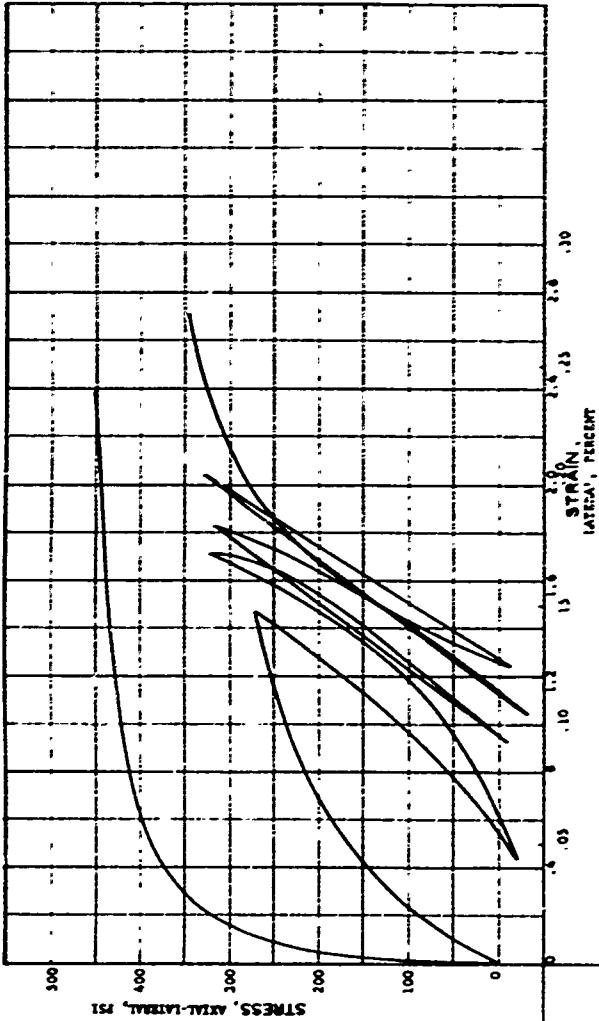
| | |
|---|---------------|
| PROJECT: Seville Mallina et al. (Benton, LA 1982) | |
| Contract No. 000009 (12-1981) | |
| AREA | |
| BORING NO. | SAMPLE NO. 16 |
| DEPTH | DATE: |
| EL. | |
| LL. | P.L. |
| | PL. |
| | LS. |
| | PL. |
| | LS. |

DESCRIPTION: Medium Beach Sand
Triaxial Cycle 3/35
Initial Pressure: 10,000 psi

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.53 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 41.03 % |
| DRY DENSITY | γ_d | 123.70 Pcf |
| WET DENSITY | γ | 136.72 Pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 2.51 cm |
| SPECIMEN HEIGHT | H_o | 7.55 cm |



HYDROSTATIC COMPRESSION PHASE



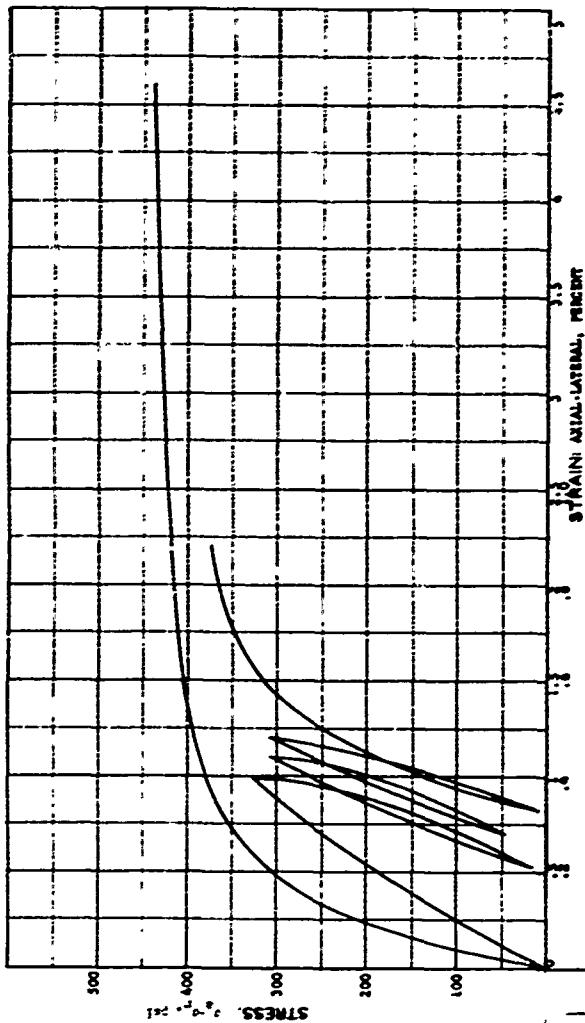
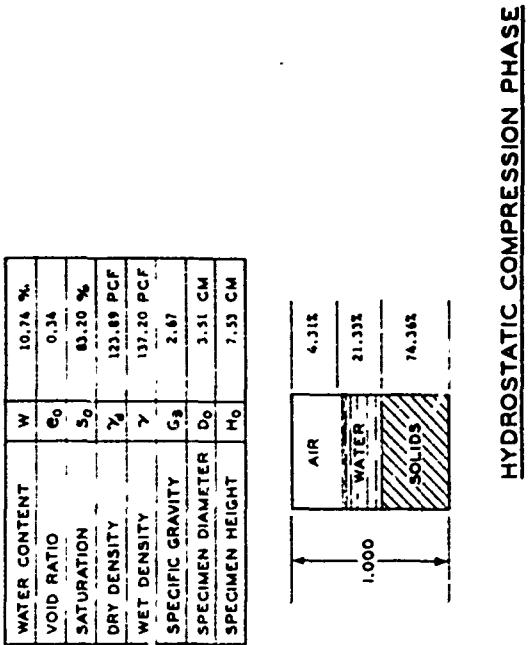
HYDROSTATIC PRESSURE, P, PSI

128

| | |
|---|---------------|
| PROJECT Georgia Institute of Technology B-102 | |
| Contract No. DACA19-67-C-0031 | |
| AREA | SAMPLE NO. 16 |
| | DATE |
| BORING NO. | P.L. |
| DEPTH, EL. | 13 |
| LL | PL |
| DESCRIPTION Horseshoe Ranch, Band 1 | |
| Triaxial Cyclic at 1% Lateral Pressure, 10,000 psi | |

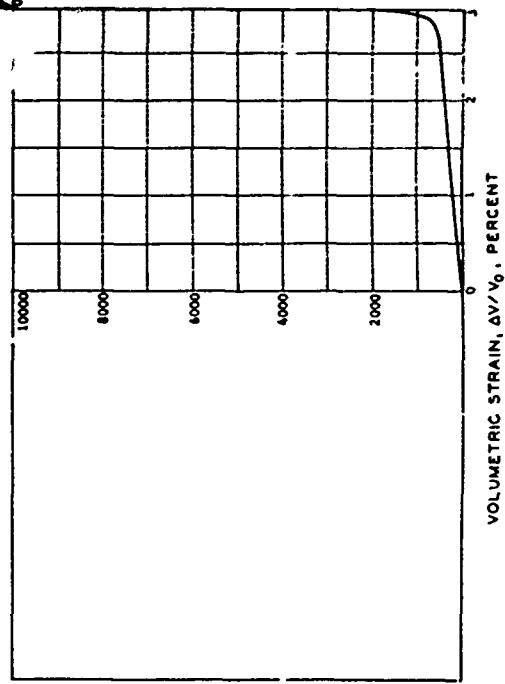
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.74 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | s ₀ | 83.20 % |
| DRY DENSITY | γ_d | 123.89 PCF |
| WET DENSITY | γ | 137.20 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.53 CM |

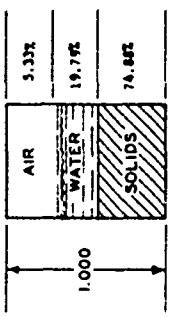


| | |
|--------------|---------------------------------------|
| PROJECT | Georgia Institute of Technology B-102 |
| Contract No. | MACA9107-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 18 |
| DEPTH | DATE |
| ft. | PL |
| in. | 15 |
| | 12 |

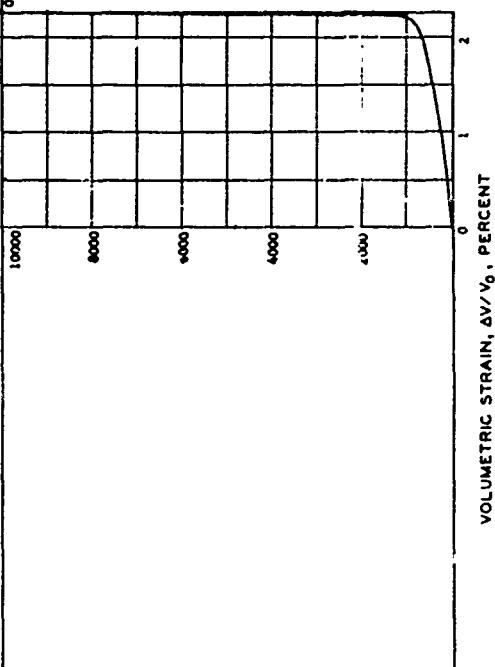
DESCRIPTION: Inorganic Bonded Aggregate
Tricalcium Phosphate 0.25%



| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 9.90 | % |
| VOID RATIO | e_0 | 0.33 | |
| SATURATION | S_0 | 74.76 | % |
| DRY DENSITY | γ_d | 126.76 | pcf |
| WET DENSITY | γ | 137.11 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.50 | cm |
| SPECIMEN HEIGHT | H_0 | 7.54 | cm |

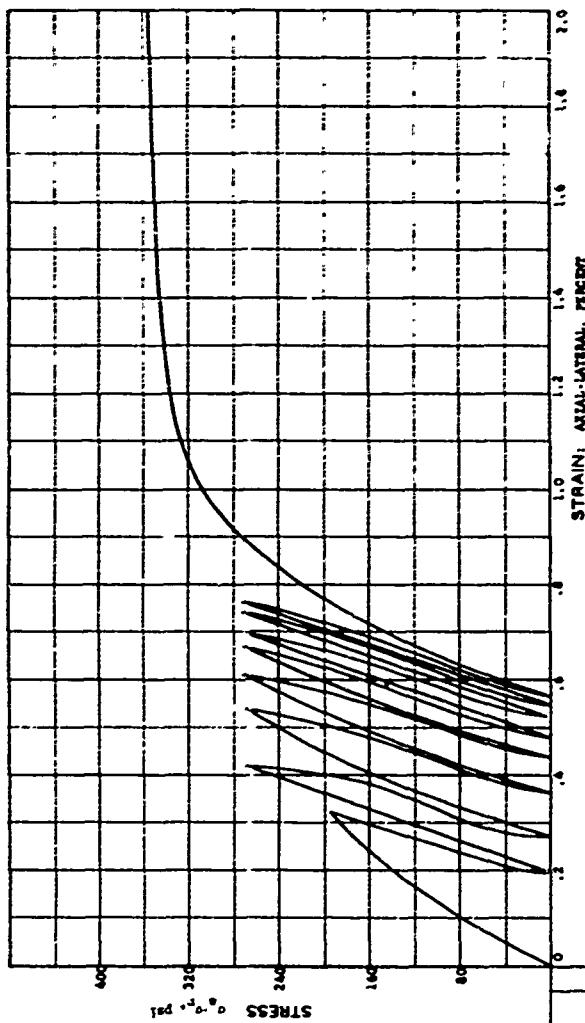


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

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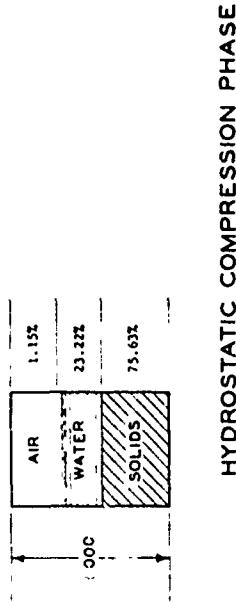
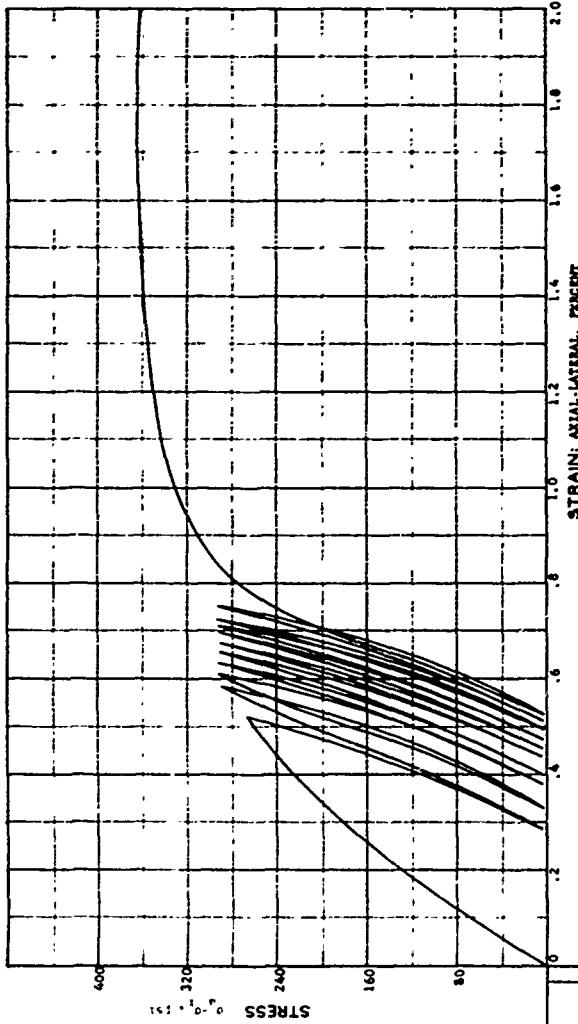


STRESS σ , lb/in^2

STRAIN: AXIAL-LATERAL, PERCENT

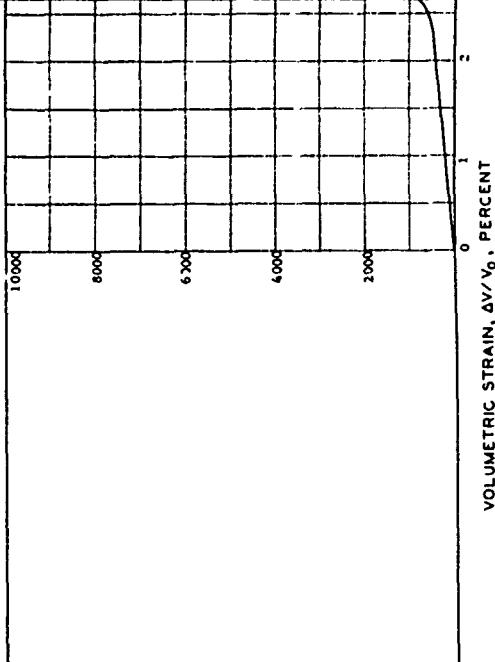
| | | | |
|------------------------------------|---------------------------------|----|----|
| PROJECT | Georgia Institute of Technology | | |
| Contract No. | DACA-17-65-0831 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 19 | | |
| DEPTH EL. | DATE | | |
| LL | 27 | PL | P1 |
| DESCRIPTION Hesdorffer Ranch, Sand | | | |
| TRANSMISSION CYLINDER, G 132 | | | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.50 | % |
| VOID RATIO | e _o | 0.32 | |
| SATURATION | s _o | 95.31 | % |
| DRY DENSITY | γ_d | 126.01 | PCF |
| WET DENSITY | γ | 140.50 | PCF |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.47 | CM |
| SPECIMEN HEIGHT | H ₀ | 7.34 | CM |



HYDROSTATIC PRESSURE, P, PSI

131



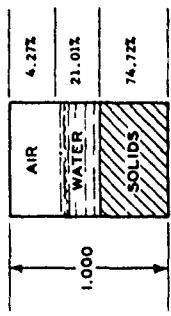
| | | |
|--------------------------------|--|----|
| PROJECT | Seaplane Institute of Technology, B.M.A. | |
| Contract No. DA-319-67-6-0031 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. 81 | |
| DEPTH | DATE | |
| EL. | | |
| LL | 27 | PL |
| | 15 | P1 |
| | | I2 |
| DESCRIPTION | McConalik Ranch Sand | |
| Tetrahedral Cycle, Sheet 3 755 | | |

Group D

Constant Ratio Tests

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| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.53 | % |
| VOID RATIO | e_0 | 0.34 | |
| SATURATION | S_0 | 85.11 | % |
| DRY DENSITY | γ_d | 126.48 | pcf |
| WET DENSITY | γ | 137.60 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.50 | CM |
| SPECIMEN HEIGHT | H_0 | 7.32 | CM |

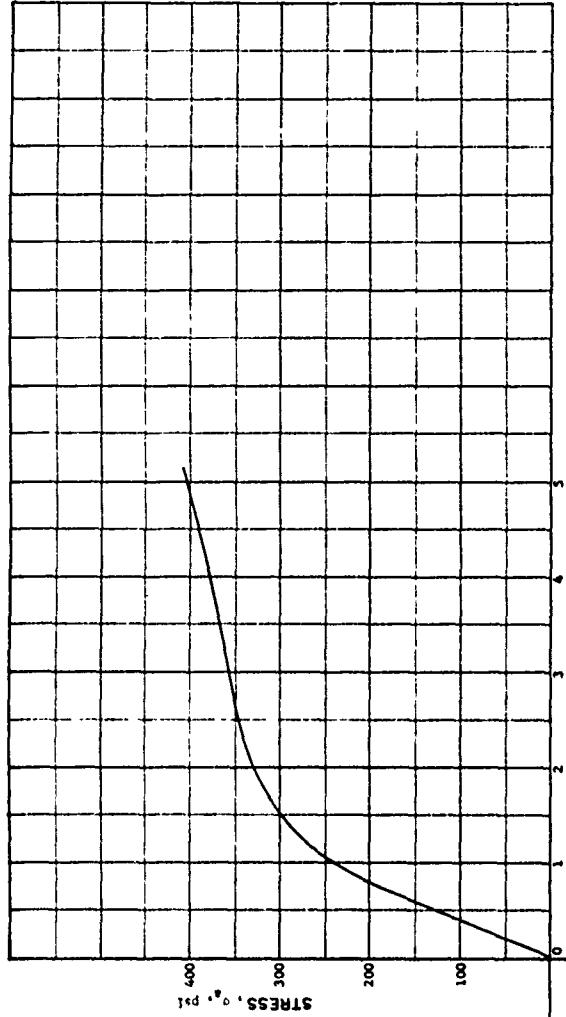


HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

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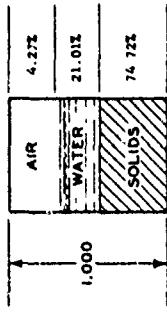
135



| | | |
|--|------------------|-------|
| PROJECT | Geotech B-602, | |
| Contract No. | DACA39-67-C-0031 | |
| AREA | | |
| BORING NO. | SAMPLE NO | 138 |
| DEPTH EL | DATE | |
| LL 27 | PL 15 | P1 12 |
| DESCRIPTION McConick Ranch Sand | | |
| Constant Stress Ratio, 0.4 | | |
| Initial Pressure, 0 psi | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

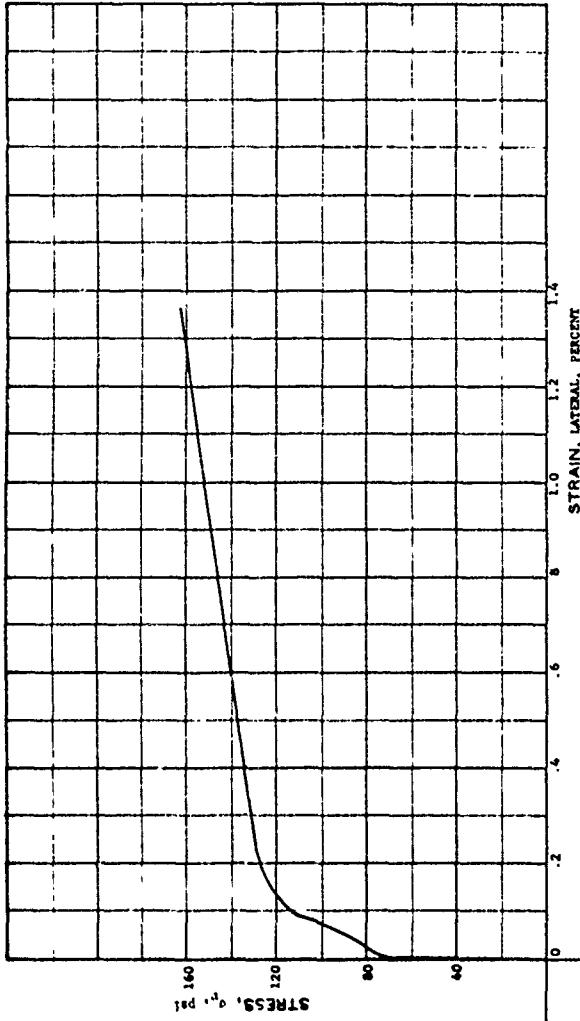
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.53 | % |
| VOID RATIO | e_0 | 0.34 | |
| SATURATION | S_g | 63.11 | % |
| DRY DENSITY | γ_d | 126.48 | pcf |
| WET DENSITY | γ | 131.60 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.50 | cm |
| SPECIMEN HEIGHT | H_0 | 7.52 | cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

136



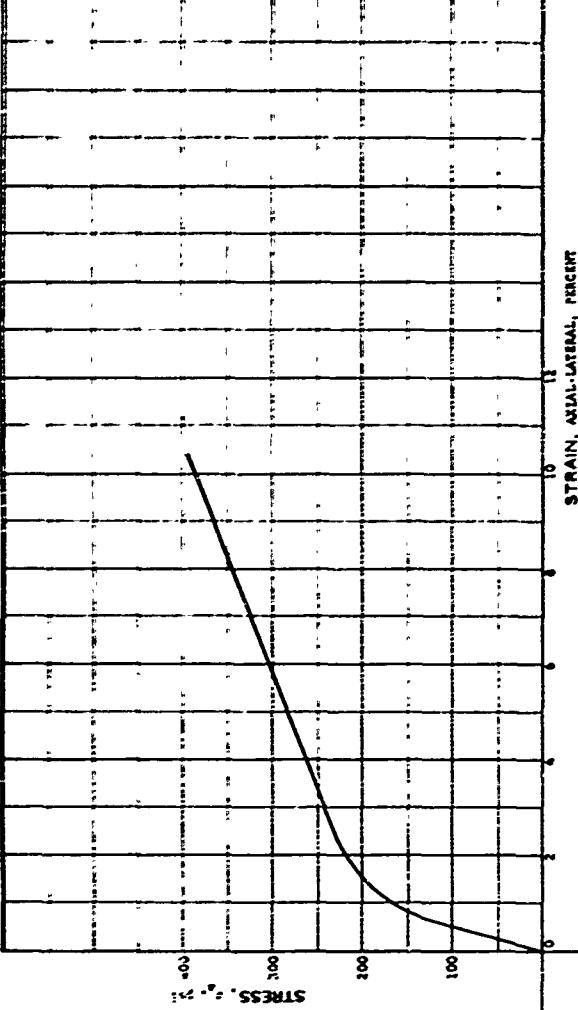
| | | | |
|-------------------------------|----------------|------|------|
| PROJECT | Ga Tech A-692. | | |
| Contract No. DACA19-67-C-0051 | | | |
| AREA | SAMPLE NO. 159 | | |
| BORING NO. | DATE | | |
| DEPTH | | | |
| EL. | | | |
| L.L. | P.L. | I.S. | P.I. |
| 27 | | | 12 |

DESCRIPTION McCormick Ranch Sand

Constant Stress Ratio, 0.4

Initial Pressure, 0 psi

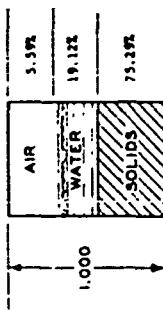
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



STRAIN, AXIAL-LATERAL, PERCENT

H' DROSTATIC COMPRESSION PHASE

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 0.31 | % |
| VOID RATIO | e ₀ | 0.33 | |
| SATURATION | s ₀ | 77.35 | % |
| DRY DENSITY | γ _d | 135.43 | pcf |
| WET DENSITY | γ | 137.37 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.30 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.53 | cm |

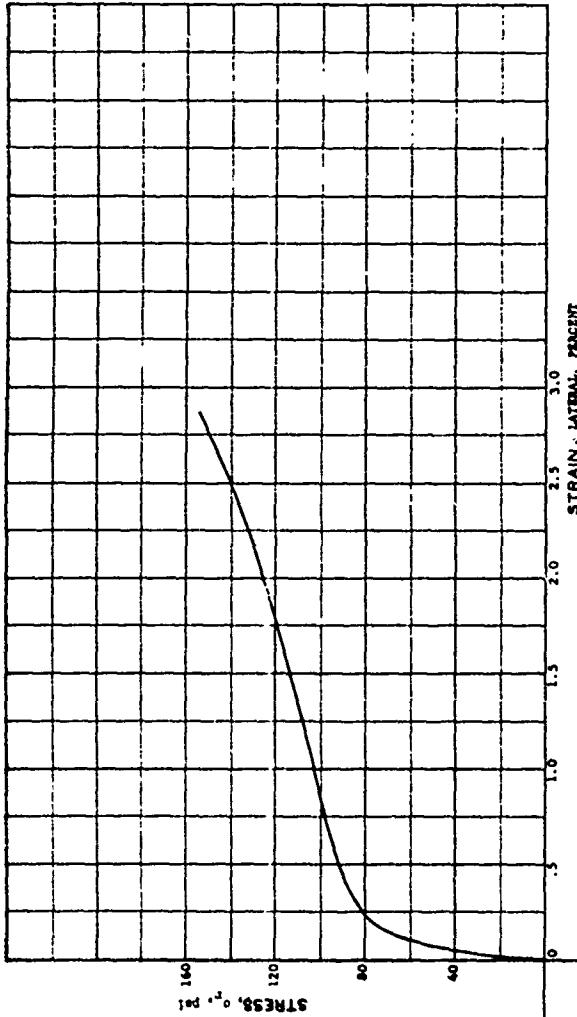


HYDROSTATIC PRESSURE, P, PSI

137

| | |
|---|------------------|
| PROJECT | Geotech B-4021 |
| SPOTTEST NO. | 246A92-A1-C-9031 |
| AREA | |
| BORING NO. | SAMPLE NO. 1W |
| DEPTH | DATE |
| EL. | |
| LL. | PL 15 Pt 12 |
| DESCRIPTION McClellan Ranch, San Joaquin Valley | |
| Constant Stress Ratio...0.4 | |
| Initial Pressure, 0.1atm | |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

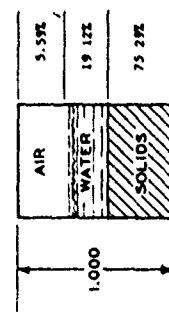


STRESS, σ , psi

STRAIN, LATERAL, PERCENT

HYDROSTATIC COMPRESSION PHASE

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 9.51 | % |
| VOID RATIO | e_0 | 0.33 | |
| SATURATION | S_o | 77.35 | % |
| DRY DENSITY | γ_d | 125.45 | pcf |
| WET DENSITY | γ | 137.37 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 3.50 | cm |



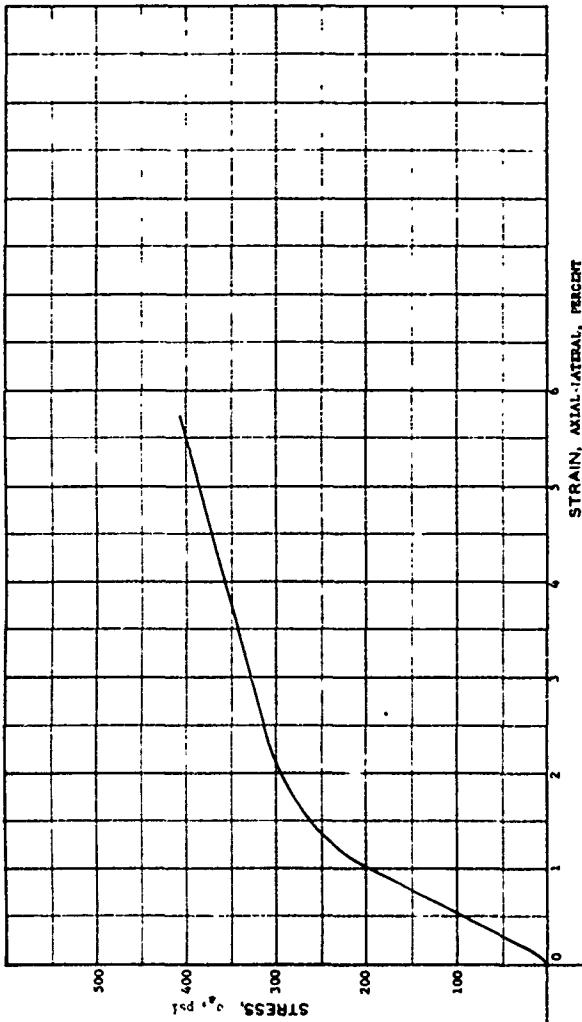
HYDROSTATIC PRESSURE, P , psi

138

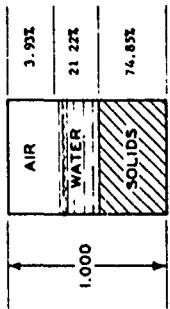
| | |
|----------------------------------|------------------|
| PROJECT | Da Tech B-602. |
| Contract No. | DACAR2-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 161 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 P1 12 |
| DESCRIPTION McCarrick Ranch Sand | |
| Constant Stress Ratio, 0.6 | |
| Initial Pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.62 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_0 | 84.37 | % |
| DRY DENSITY | γ_d | 124.70 | pcf |
| WET DENSITY | γ | 137.94 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_0 | 3.49 | cm |
| SPECIMEN HEIGHT | H_0 | 7.56 | cm |



HYDROSTATIC COMPRESSION PHASE

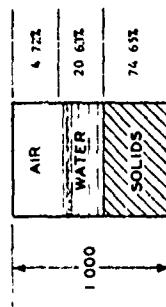


HYDROSTATIC PRESSURE, P, PSI

| | |
|---|------------------|
| PROJECT | Ge Tech B-6021 |
| Contract No. | DACAR9-67-0-0051 |
| AREA | |
| BORING NO | SAMPLE NO. 102 |
| DEPTH | DATE |
| EL. | |
| LL | PL 15 |
| | PL 12 |
| DESCRIPTION H-Gomarik Ranch Sand | |
| Constant stress Ratio, 0.4; Initial reservoir, 0.81 | |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

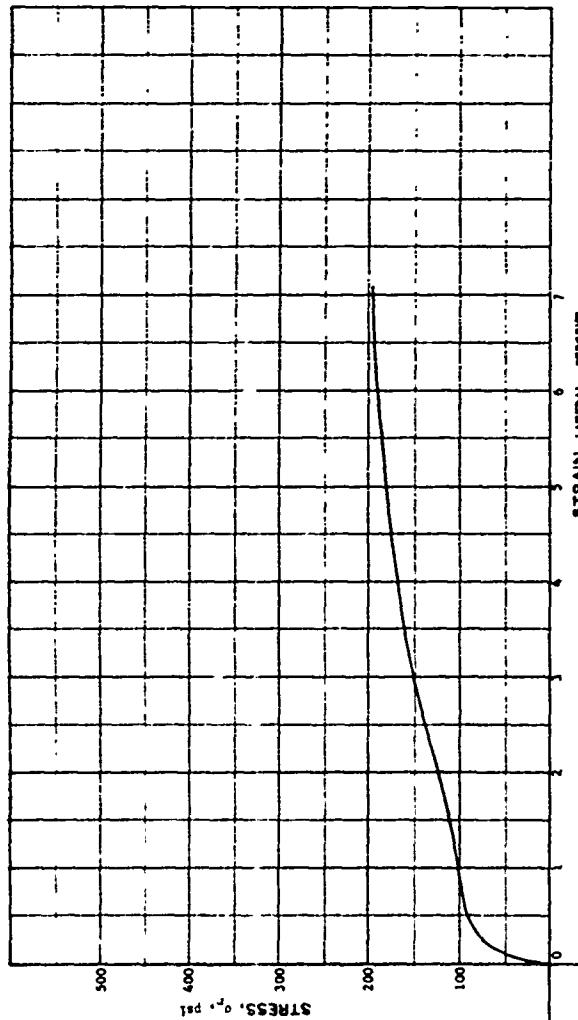
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.35 | % |
| VOID RATIO | e_0 | 0.34 | |
| SATURATION | S_0 | 81.37 | % |
| DRY DENSITY | γ_d | 126.37 | pcf |
| WET DENSITY | γ' | 137.24 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.54 | cm |



HYDROSTATIC COMPRESSION PHASE

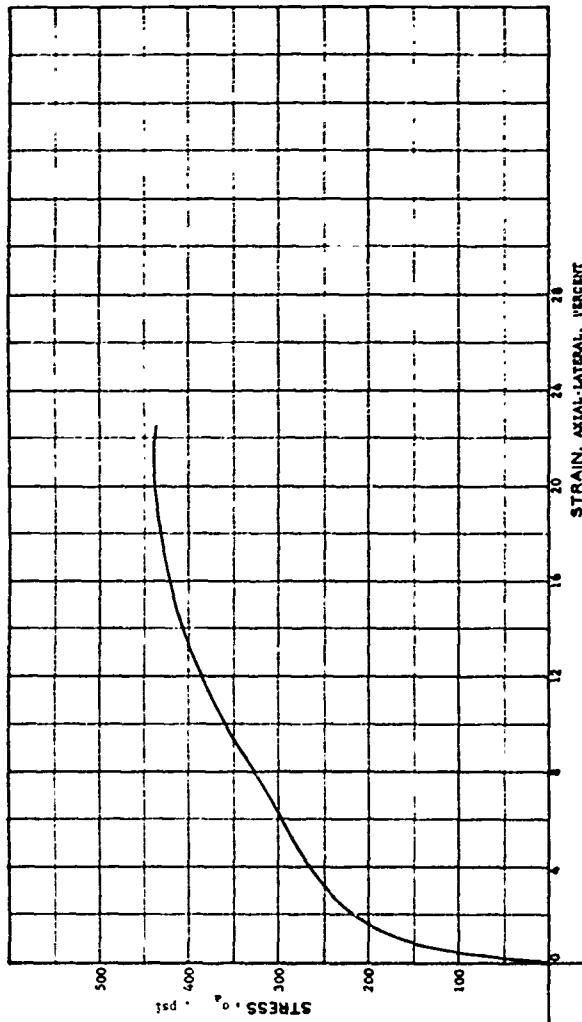
HYDROSTATIC PRESSURE, P, PSI

140



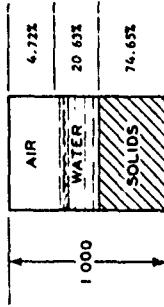
| | | | | | |
|----------------------------------|------------------|----|----|----|----|
| PROJECT | Ga. Tech. B-001 | | | | |
| Contract No. | RACAA9-62-G-001A | | | | |
| | | | | | |
| AREA | | | | | |
| BORING NO. | | | | | |
| DEPTH | | | | | |
| EL. | | | | | |
| SAMPLE NO. 164 | | | | | |
| DATE | | | | | |
| LL | 27 | PL | 15 | P1 | 12 |
| DESCRIPTION McCormick Ranch Sand | | | | | |
| Constant Stress Ratio, 0.4 | | | | | |
| Initial Pressure, 0 psi | | | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



STRAIN, AXIAL-LATERAL, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.35 | % |
| VOID RATIO | e_0 | 0.34 | |
| SATURATION | S_o | 81.37 | % |
| DRY DENSITY | γ_d | 124.37 | pcf |
| WET DENSITY | γ | 137.26 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.34 | cm |



HYDROSTATIC COMPRESSION PHASE

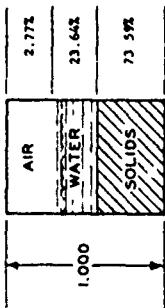
HYDROSTATIC PRESSURE, P, PSI

141

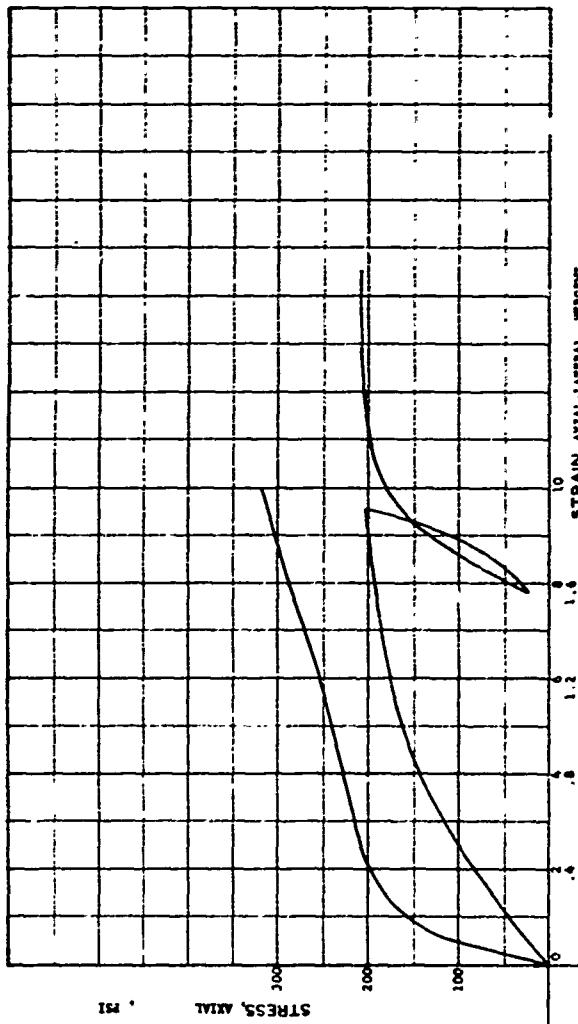
| | |
|----------------------------------|---------------|
| PROJECT | On Tech 8-402 |
| Contract No. DAGAS-87-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 14 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 |
| | PL 12 |
| DESCRIPTION McCormick Ranch Sand | |
| Content Stres Ratio, 0.4 | |
| Initial Pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.03 | % |
| VOID RATIO | e _o | 0.36 | |
| SATURATION | S _o | 89.49 | % |
| DRY DENSITY | γ_d | 122.60 | pcf |
| WET DENSITY | γ' | 137.35 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D _o | 3.50 | cm |
| SPECIMEN HEIGHT | H _o | 7.53 | cm |



HYDROSTATIC COMPRESSION PHASE



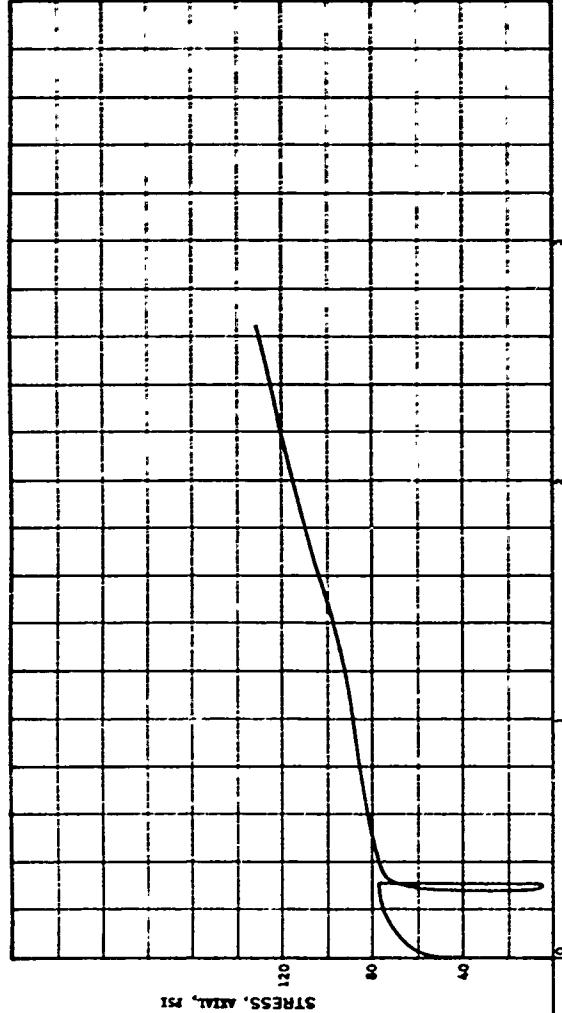
HYDROSTATIC PRESSURE, P, PSI

142

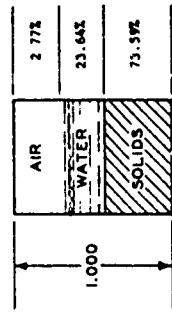
| | |
|--------------|----------------------------|
| PROJECT | Geotech B-402 |
| CONTRACT NO. | DAAG29-67-C-0031 |
| AREA | SAMPLE NO. 107 |
| BORING NO. | DATE |
| DEPTH | |
| EL. | |
| LL. | PL. 13 |
| | P1 17 |
| DESCRIPTION | McNichols Ranch Sand |
| | Constant Stress Ratio, 0.4 |
| | Initial Pressure, 0 psi |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.00 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_o | 89.49 | % |
| DRY DENSITY | γ_d | 122.60 | pcf |
| WET DENSITY | γ' | 137.35 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.33 | cm |



HYDROSTATIC COMPRESSION PHASE



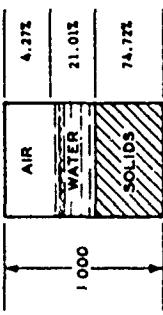
HYDROSTATIC PRESSURE, P, PSI

143

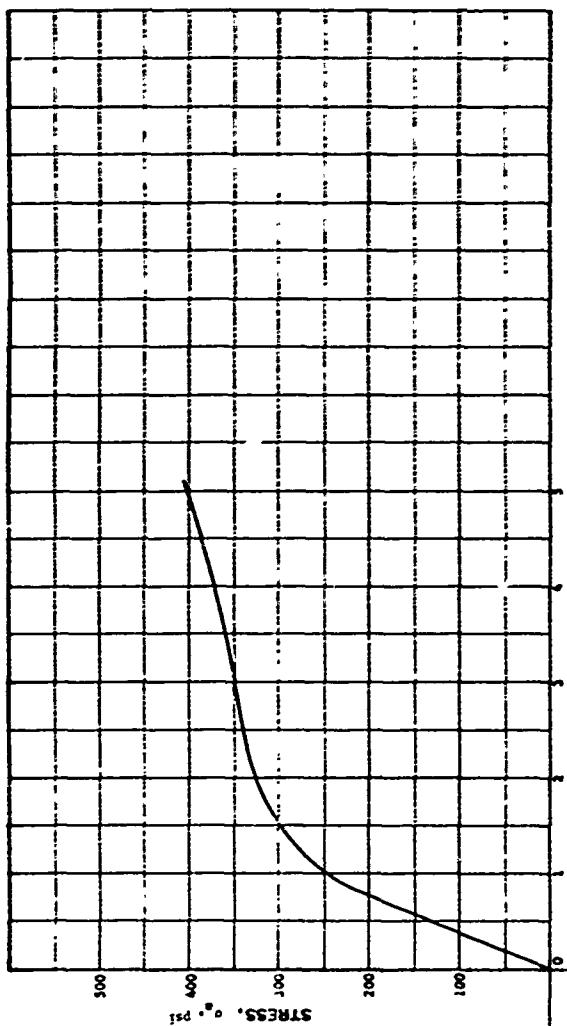
| | |
|---------------------------------|-------------------|
| PROJECT | Geotechnical Test |
| Core Test No. | MC-23-01-0021 |
| AREA | |
| BORING NO. | SAMPLE NO. 161 |
| DEPTH | DATE |
| EL. | |
| LL | PL 15 Pl 17 |
| DESCRIPTION: McGehee Beach Sand | |
| Constant stress ratio, 0.4 | |
| Initial pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.53 | % |
| VOID RATIO | e_0 | 0.34 | |
| SATURATION | S_o | 63.11 | % |
| DRY DENSITY | γ_d | 124.48 | pcf |
| WET DENSITY | γ | 137.40 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.52 | cm |



HYDROSTATIC COMPRESSION PHASE



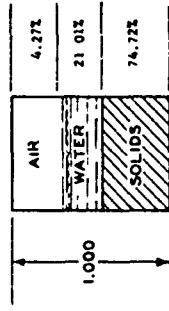
HYDROSTATIC PRESSURE, P, PSI

144

| | |
|--|---------------------------------|
| PROJECT | De Tech 1, 6021 |
| LOCATION | McGinnis Rd., Atlanta, GA 30331 |
| AREA | |
| BORING NO. | SAMPLE NO. 14 |
| DEPTH EL. | DATE |
| LL | PL |
| DESCRIPTION INCLINATION, Depth 344 ft. | |
| Constant Stress Ratio: 0.4 | |
| Initial Pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

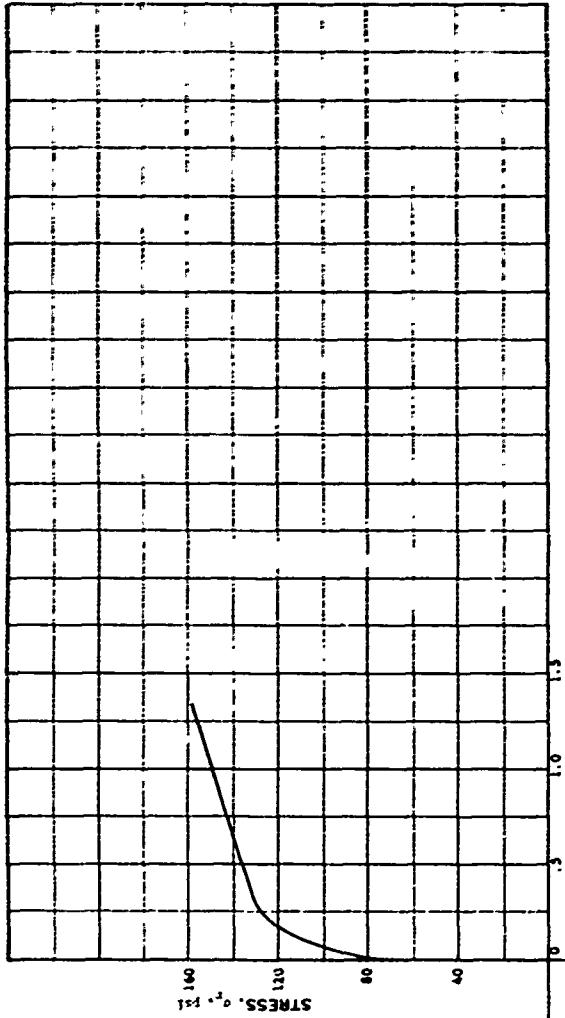
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.53 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_o | 63.11 | % |
| DRY DENSITY | γ_d | 126.48 | FCF |
| WET DENSITY | γ | 131.60 | FCF |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.50 | CM |
| SPECIMEN HEIGHT | H_o | 7.32 | CM |



HYDROSTATIC COMPRESSION PHASE

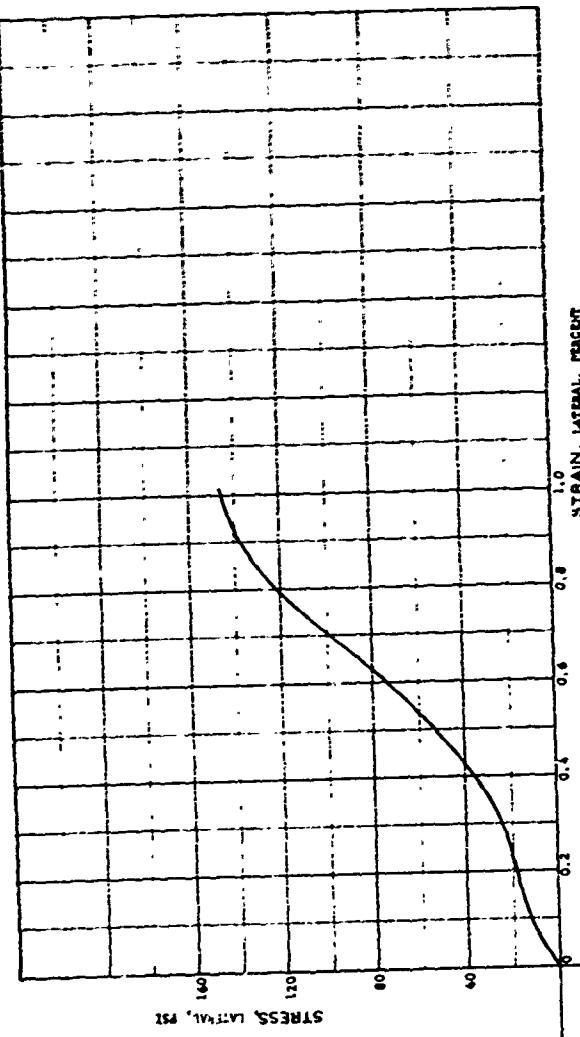
HYDROSTATIC PRESSURE, P, PSI

145



| | |
|-----------------------------------|----------------|
| PROJECT | On 10th B-101 |
| SAMPLE NO. | PCB-30-N.G.001 |
| AREA | |
| BORING NO. | 14 |
| DEPTH EL. | |
| LL | 27 |
| PL | 13 |
| PI | 11 |
| DATE | |
| DESCRIPTION: Macmillan Ranch Sand | |
| Content Stress Ratio, 0.4 | |
| Initial Pressure, 0 psi | |

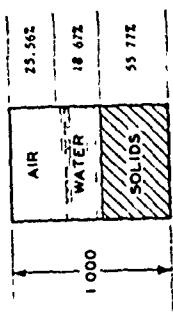
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



STRESS, LATENT, psi

HYDROSTATIC COMPRESSION PHASE

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.40 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_o | 42.21 % |
| DRY DENSITY | γ_d | 93.94pcf |
| WET DENSITY | γ | 105.61pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.49 cm |
| SPECIMEN HEIGHT | H_o | 7.60 cm |



HYDROSTATIC PRESSURE, P , PSI

146

| | |
|--------------|---------------------|
| PROJECT | QA Tech B-1921 |
| BOREhole No. | DA-CA-31-027-G-0031 |
| AREA | |
| SAMPLE NO. | 103 |
| BORING NO. | |
| DEPTH | |
| E.L. | |
| DATE | |
| LL | 16 |
| PL | 11 |
| PL | 10 |

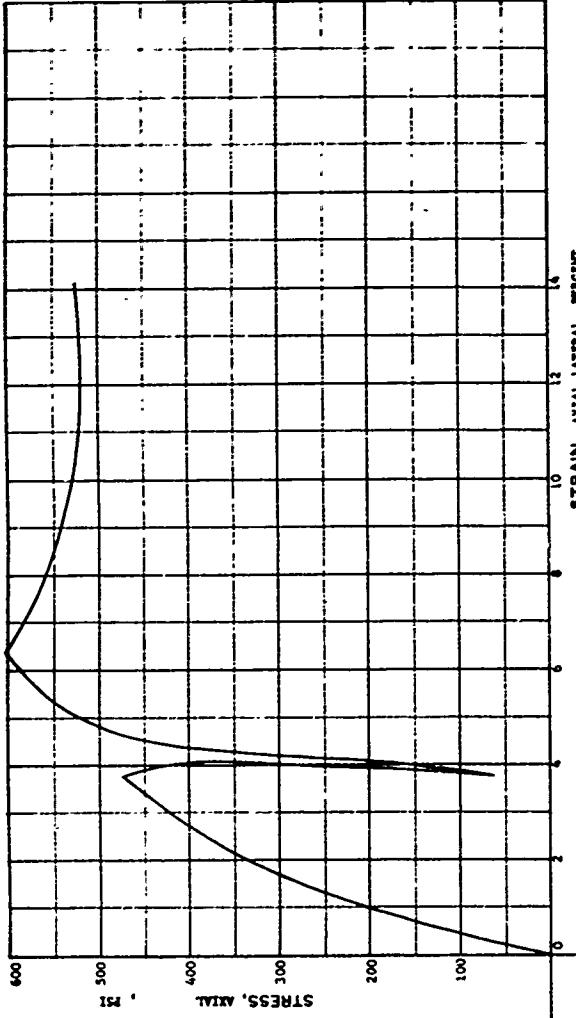
DESCRIPTION - Wetting Hall Effect -

Constant Stress Ratio, 0.4

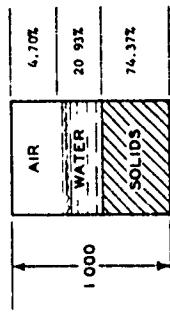
Initial Pressure, 100 psi

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.54 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 81.65 % |
| DRY DENSITY | γ_d | 123.89pcf |
| WET DENSITY | γ | 136.96pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 1.51 cm |
| SPECIMEN HEIGHT | H_o | 7.53 cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

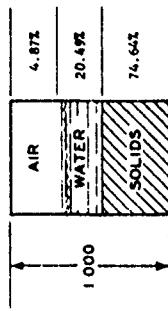
147

| | |
|--------------|------------------|
| PROJECT | G-Ish B-601 |
| Contract No. | DACAS9-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 181 |
| DEPTH | DATE |
| EL | |
| LL 27 | PL 15 |
| | P1 12 |

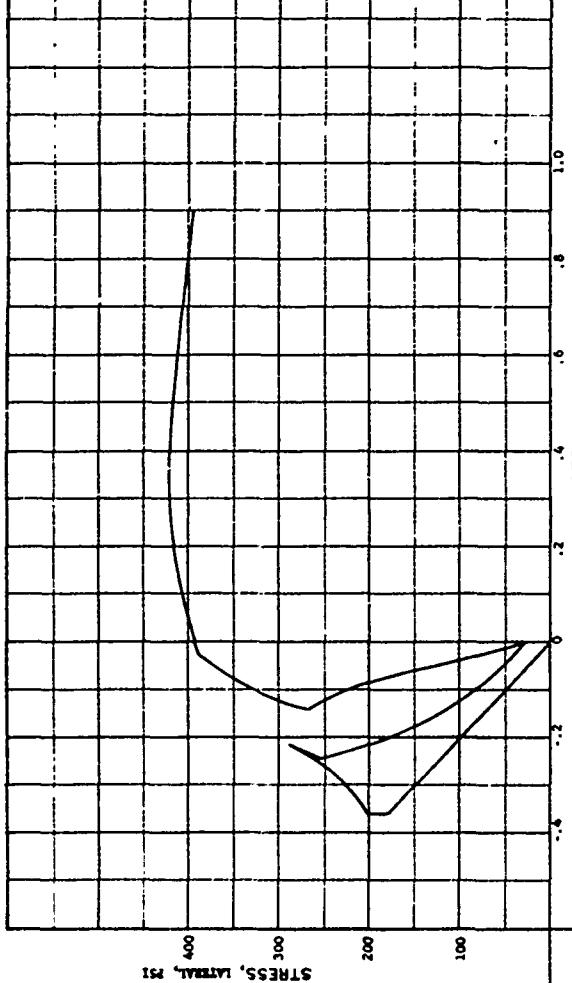
DESCRIPTION: McCormick Ranch Sand
Constant Stress Ratio, 0.61 Initial Pressure, 0.91
Cycle Shear 375°,

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.28 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | S ₀ | 80.79 % |
| DRY DENSITY | γ_d | 126.36 PCF |
| WET DENSITY | γ' | 137.14 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.53 CM |



HYDROSTATIC COMPRESSION PHASE



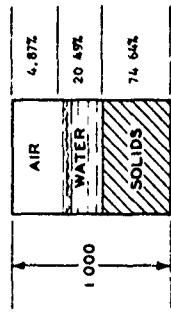
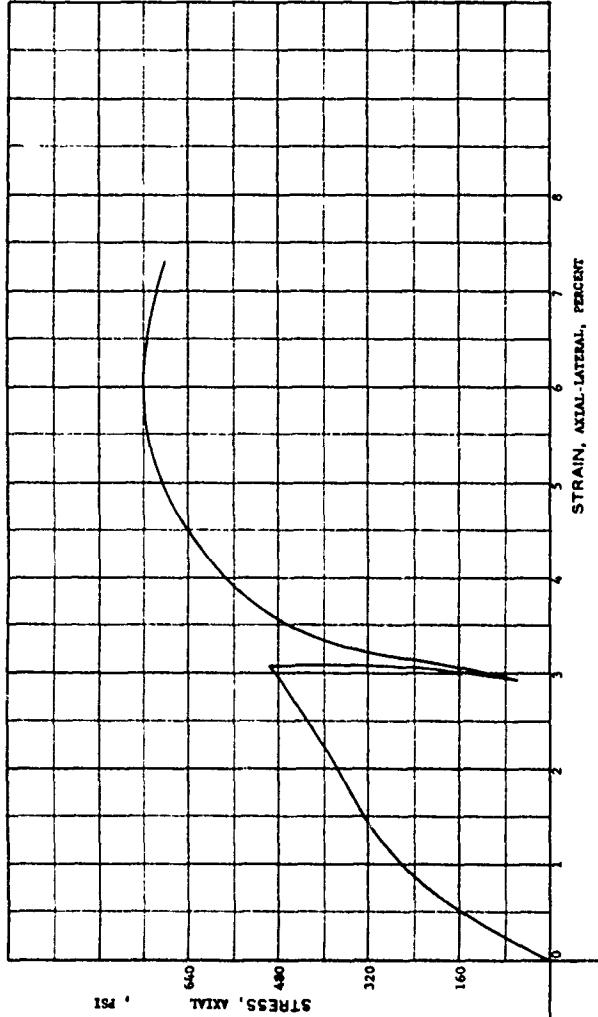
HYDROSTATIC PRESSURE, P, PSI

148

| | |
|--|----------------|
| PROJECT | Ge Tech B-602: |
| Contract No. DACA39-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 182 |
| DEPTH | DATE |
| EL | |
| LL | PL |
| | 15 |
| | P1 |
| | 12 |
| DESCRIPTION McCormick Ranch Sand | |
| Constant Stress Ratio, 0.6; Initial Pressure, 0. Del | |
| Cycle Shear Q.35 | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.22 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 80.79 % |
| DRY DENSITY | γ_d | 124.36 Pcf |
| WET DENSITY | γ | 137.14 Pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 cm |
| SPECIMEN HEIGHT | H_o | 7.53 cm |



HYDROSTATIC COMPRESSION PHASE

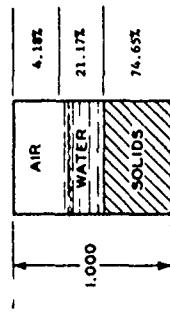
HYDROSTATIC PRESSURE, P, PSI

149

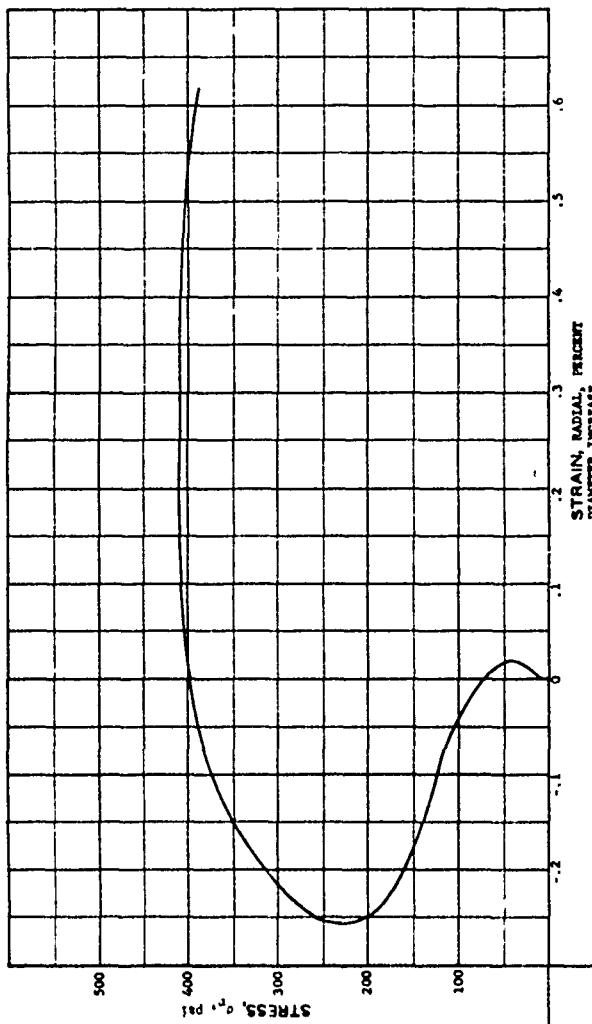
| | | |
|---|------------------|-------|
| PROJECT | Geotech B-602, | |
| Contract No. | DUCAS9-62-C-0091 | |
| <u>AREA</u> | | |
| BORING NO. | SAMPLE NO. | 102 |
| DEPTH EL | DATE | |
| LL 27 | PL 15 | P1 12 |
| <u>DESCRIPTION</u> McCormick Ranch Sand | | |
| Constant Stress Ratio, 0.6; Initial Pressure, 0 psi | | |
| Cycle Shear < 75% | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 10.62 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | s ₀ | 63.49 % |
| DRY DENSITY | γ_d | 124.37pcf |
| WET DENSITY | γ | 137.58pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.59 cm |



HYDROSTATIC COMPRESSION PHASE

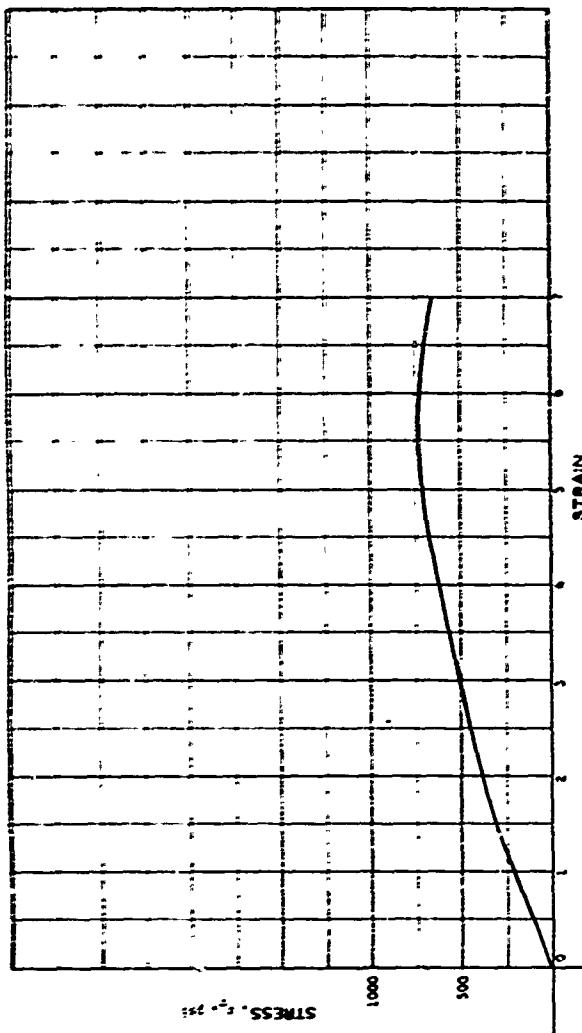
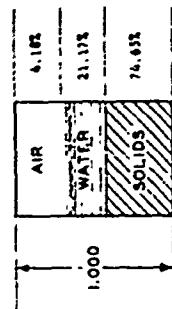


150

| | | | |
|----------------------------------|----------------|----|----|
| PROJECT | Ge Tech 3-6021 | | |
| Contract No. DMAA39-67-C-0031 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 186 | | |
| DEPTH | DATE | | |
| EL. | LL | PL | 15 |
| | 27 | P1 | 12 |
| DESCRIPTION McCormick Ranch Sand | | | |
| Constant Stress Ratio, 0.6 | | | |
| Initial Pressure, 0 psi | | | |

VOLMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 10.82 |
| VOID RATIO | e | 0.18 |
| SATURATION | S | 91.6% |
| DRY DENSITY | D _d | 116.37pcf |
| WET DENSITY | D _w | 137.38pcf |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D _o | 3.49 cm |
| SPECIMEN HEIGHT | H _o | 7.59 cm |

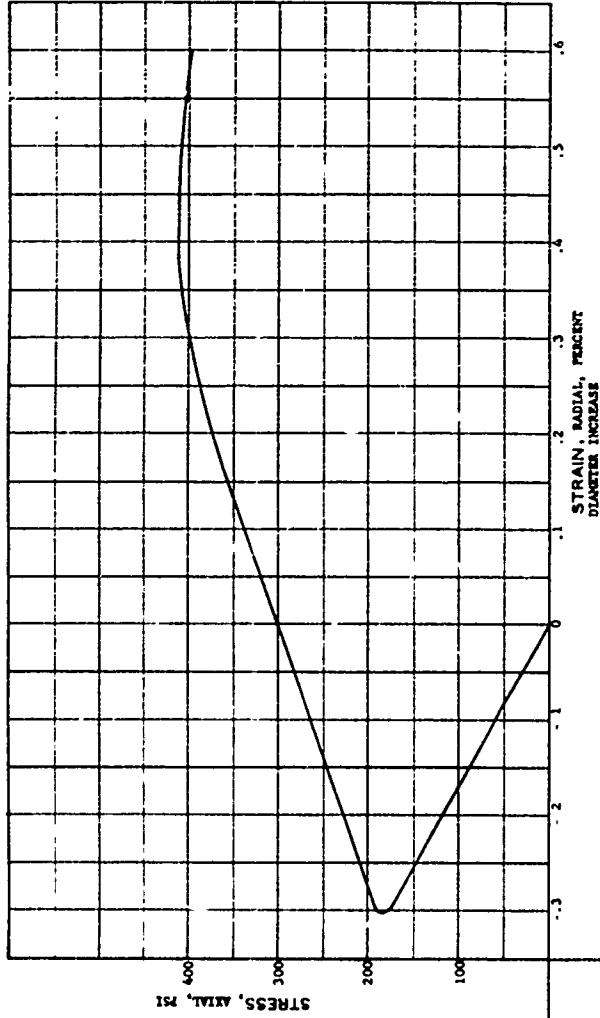


HYDROSTATIC PRESSURE, P, PSI

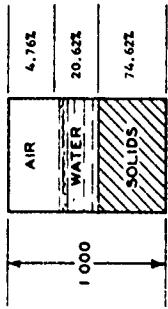
151

| | | | | |
|-----------------------------------|----------------|----|----|----|
| PROJECT | De Tech B-402 | | | |
| Contract No. | DCR33941.C0031 | | | |
| AREA | | | | |
| BORING NO. | SAMPLE NO. 16 | | | |
| DEPTH | DATE | | | |
| EL. | | | | |
| LL | PL | 15 | PI | 12 |
| DESCRIPTION McCormick Ranch 1 and | | | | |
| Constant Stress Ratio, 0.6 | | | | |
| Initial Pressure, 0 psf | | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.36 | % |
| VOID RATIO | e ₀ | 0.36 | |
| SATURATION | s ₀ | 61.23 | % |
| DRY DENSITY | γ_d | 124.33 | pcf |
| WET DENSITY | γ' | 137.19 | pcf |
| SPECIFIC GRAVITY | G ₀ | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.50 | cm |



HYDROSTATIC COMPRESSION PHASE

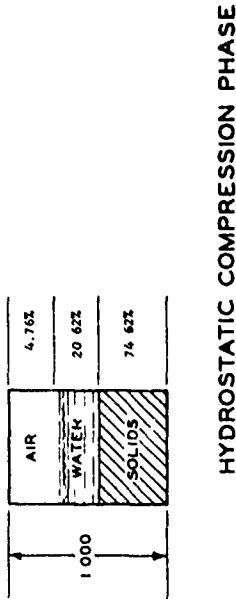
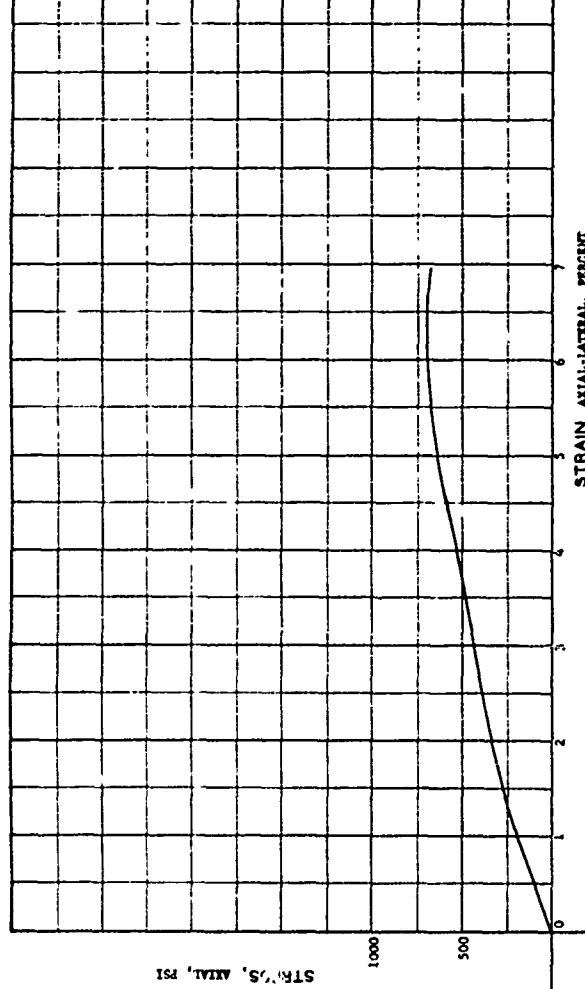
HYDROSTATIC PRESSURE, P, PSI

152

| | |
|-------------------------------|----------------|
| PROJECT Da Tech 3-607; | |
| Contract No. DA-319-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 187 |
| DEPTH | DATE |
| EL. | |
| 1.1. | 27 |
| | PL |
| | 15 |
| | P1 |
| | 12 |

DESCRIPTION McCormick Ranch Sand
Constant Stress Ratio, 0.6
Initial Pressure, 0 psi

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.34 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | S ₀ | 81.23 % |
| DRY DENSITY | γ_d | 126.33 PCF |
| WET DENSITY | γ' | 137.19 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.34 CM |



HYDROSTATIC COMPRESSION PHASE

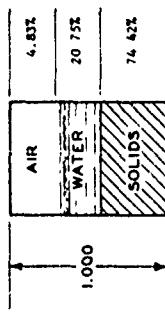
HYDROSTATIC PRESSURE, P, PSI

153

| | |
|----------------------------------|----------------|
| PROJECT | Geotech B-601 |
| Contract No. DICA39-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 187 |
| DEPTH | DATE |
| EL | |
| LL | PL 15 |
| | P1 12 |
| DESCRIPTION McCormick Ranch Sand | |
| Constant Stress Ratio, 0.6 | |
| Initial Pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|------------|
| WATER CONTENT | w | 10.44 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | s_0 | 81.11 % |
| DRY DENSITY | γ_d | 123.99 PCF |
| WET DENSITY | γ | 136.94 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 CM |
| SPECIMEN HEIGHT | H_o | 7.54 CM |



HYDROSTATIC COMPRESSION PHASE

STRESS, AXIAL, PSI

STRAIN, AXIAL-LATERAL, PERCENT

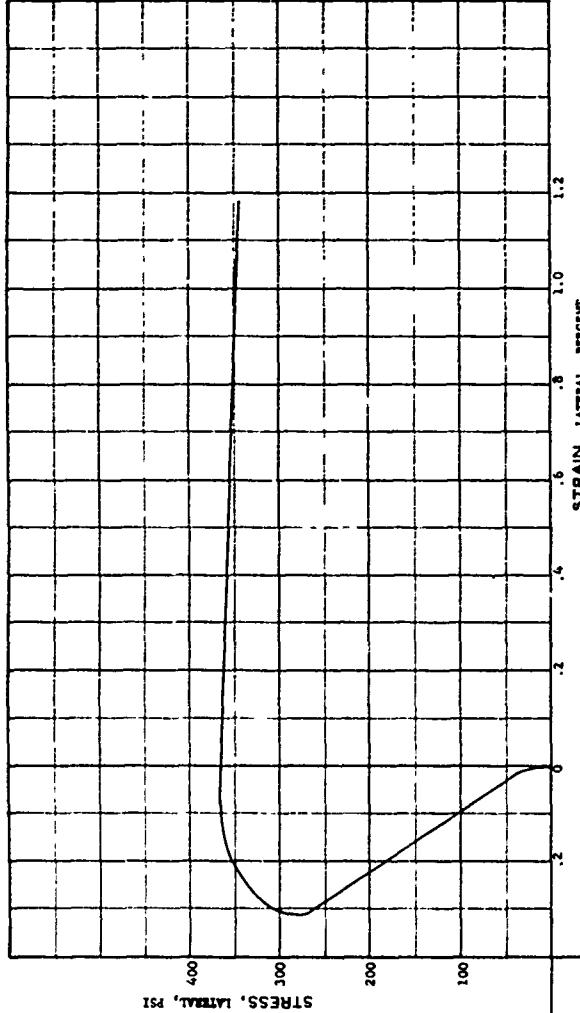
HYDROSTATIC PRESSURE, P, PSI

154

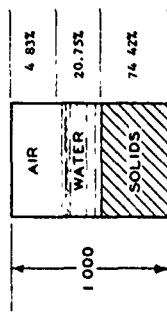
| | |
|---|-----------------------|
| PROJECT <u>GA-Tech-B-602</u> | |
| Contract No. <u>DACM9-67-C-0031</u> | |
| AREA | SAMPLE NO. <u>168</u> |
| BORING NO. | DEPTH <u>EL</u> |
| LL | PL |
| 27 | 13 |
| | P1 |
| | 12 |
| DESCRIPTION <u>McDonald Ranch, Sand</u> | |
| Constant Stress Ratio, 0.6 | |
| Initial Pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.44 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | S _o | 81.11 % |
| DRY DENSITY | γ_d | 123.99 PCF |
| WET DENSITY | γ | 136.94 PCF |
| SPECIMEN GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.54 CM |



HYDROSTATIC COMPRESSION PHASE



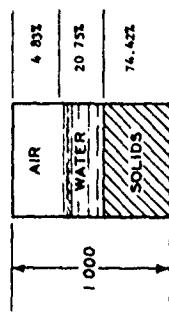
HYDROSTATIC PRESSURE, P, PSI

155

| | |
|----------------------------------|----------------|
| PROJECT | Ge Tech 8-603; |
| Contract No. DACA39-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 104 |
| DEPTH | DATE |
| EL. | |
| LL. | PL 15 P1 12 |
| DESCRIPTION McCormick Ranch Sand | |
| Constant Stress Ratio, 0.6 | |
| Initial Pressure, 0.15 | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

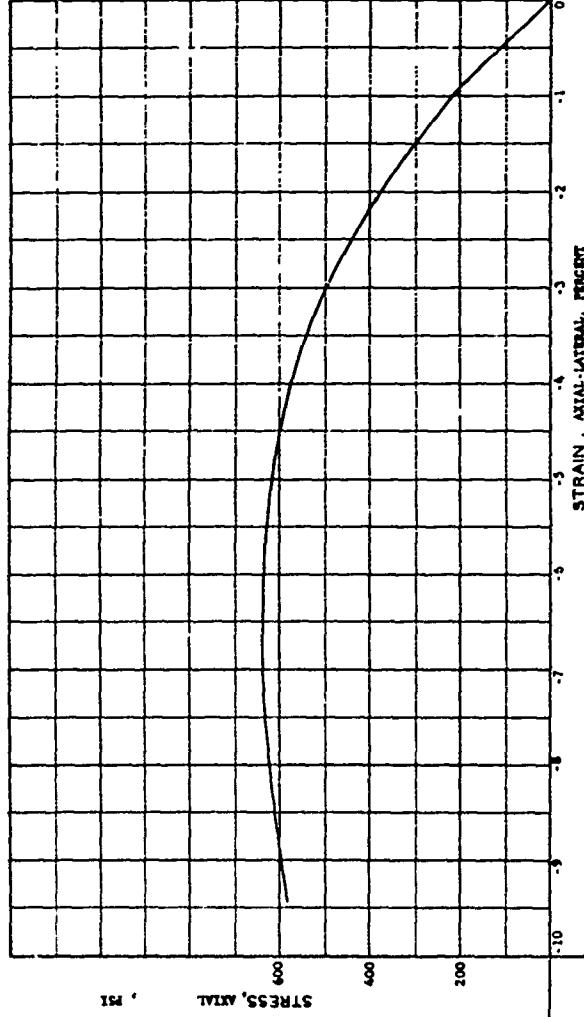
| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 10.44 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 81.11 % |
| DRY DENSITY | γ_d | 123.99pcf |
| WET DENSITY | γ_w | 136.96pcf |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.50 cm |
| SPECIMEN HEIGHT | H_o | 7.54 cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

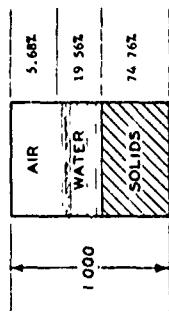
156



| | | | |
|-------------------------------|----------------|----------------------------|-----|
| PROJECT | Geotech S-602; | SAMPLE NO. | 168 |
| Contract No. DAMA31.87-C-0031 | | DATE | |
| AREA | | | |
| BORING NO. | | PL | 15 |
| DEPTH EL | | P1 | 12 |
| DESCRIPTION | | McDonald Ranch Sand | |
| | | Constant Strain Ratio, 0.4 | |
| | | Initial Pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

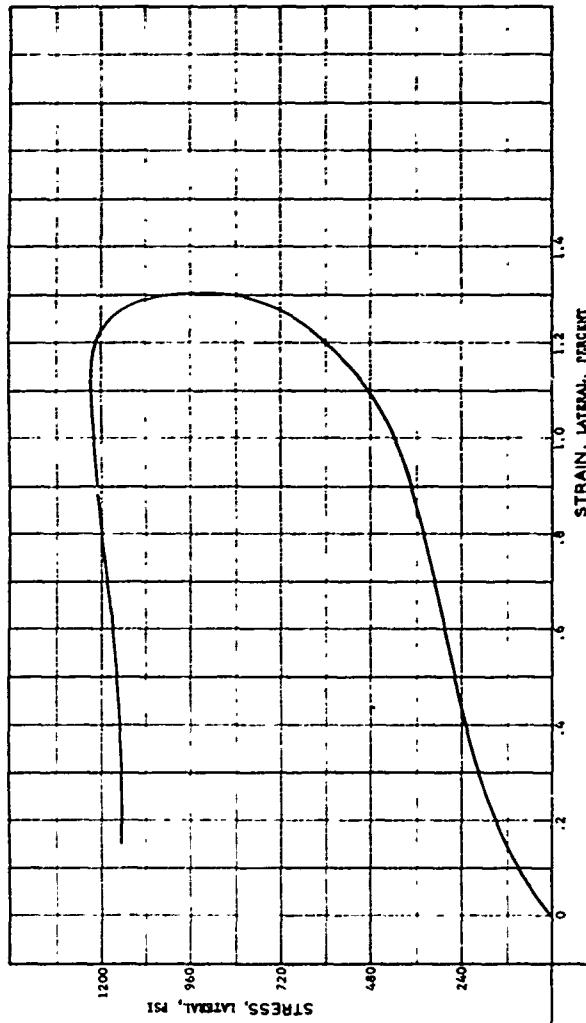
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 9.80 | % |
| VOID RATIO | e_0 | 0.34 | |
| SATURATION | S _o | 77.44 | % |
| DRY DENSITY | γ_d | 126.55 | pcf |
| WET DENSITY | γ | 136.75 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.26 | cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

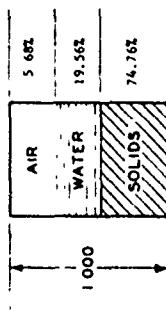
157



| | | | |
|-------------------------------|---------------------------------|--------------|------------------|
| PROJECT | Georgia Institute of Technology | Contract No. | DA-439-67-C-0031 |
| AREA | | | |
| BORING NO. | SAMPLE NO. 143 | DATE | |
| DEPTH EL. | LL 27 | PL 13 | PT 12 |
| DESCRIPTION Heceta Ranch Land | | | |
| Constant stress Ratio, 0.8 | | | |
| Initial Pressure, 0 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

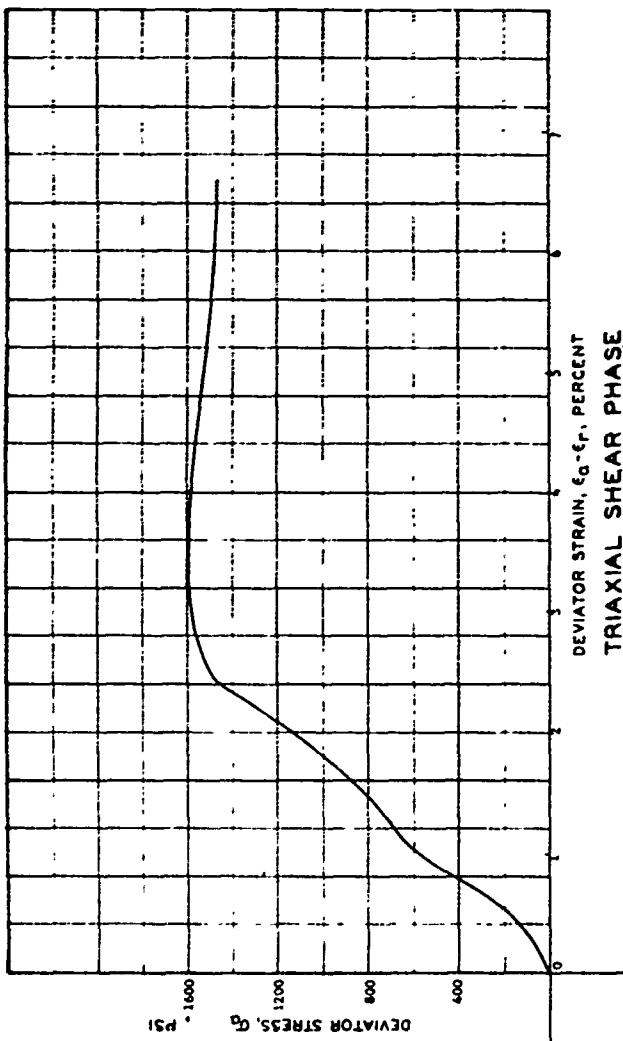
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | w | 9.60 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | s ₀ | 77.48 % |
| DRY DENSITY | γ_d | 124.35 PCF |
| WET DENSITY | γ_w | 136.75 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D _c | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.26 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

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TRIAXIAL SHEAR PHASE

PROJECT Georgia Institute of Technology R-602

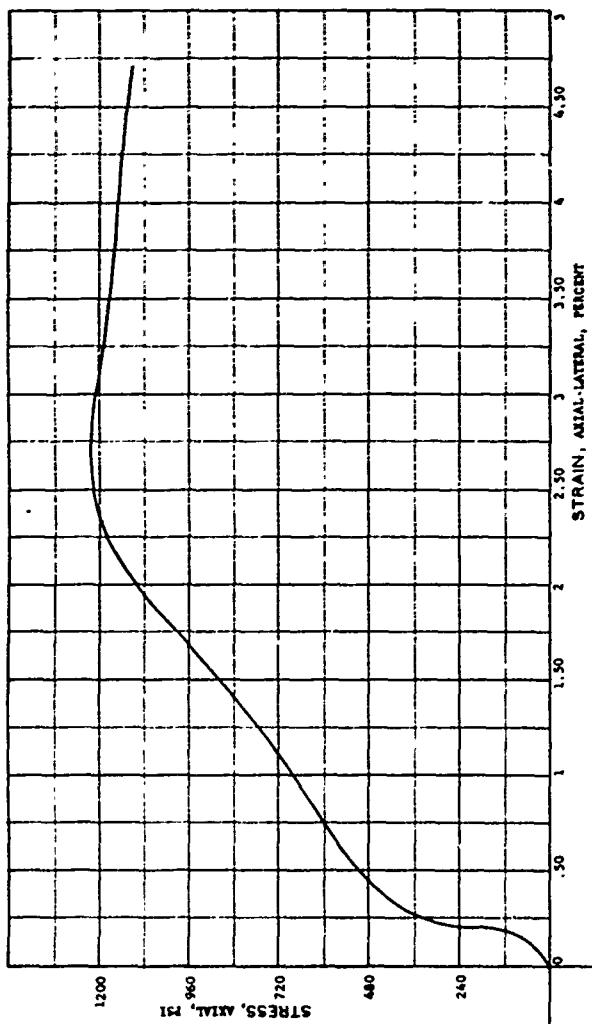
Contract No. DMA3701-C-9001

AREA

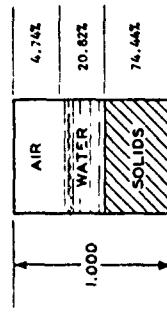
| BORING NO. | SAMPLE NO. 14A | | |
|------------|----------------|-------|----|
| | DEPTH EL. | DATE | P1 |
| LL 27 | PL 15 | PL 12 | |

DESCRIPTION McWayne Beach Sand
Constant Stress Ratio, 0.8
Initial Pressure, 0.81

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



HYDROSTATIC COMPRESSION PHASE



| | | |
|-------------------|------------|------------|
| WATER CONTENT | w | 10.47 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | s_0 | 81.46 % |
| DRY DENSITY | γ_d | 124.03 PCF |
| WET DENSITY | γ | 131.02 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | d_0 | 3.51 CM |
| SPECIMEN HEIGHT | h_0 | 7.53 CM |

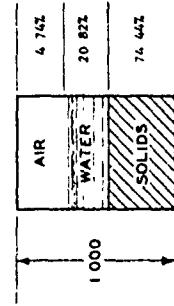
HYDROSTATIC PRESSURE, P, PSI

159

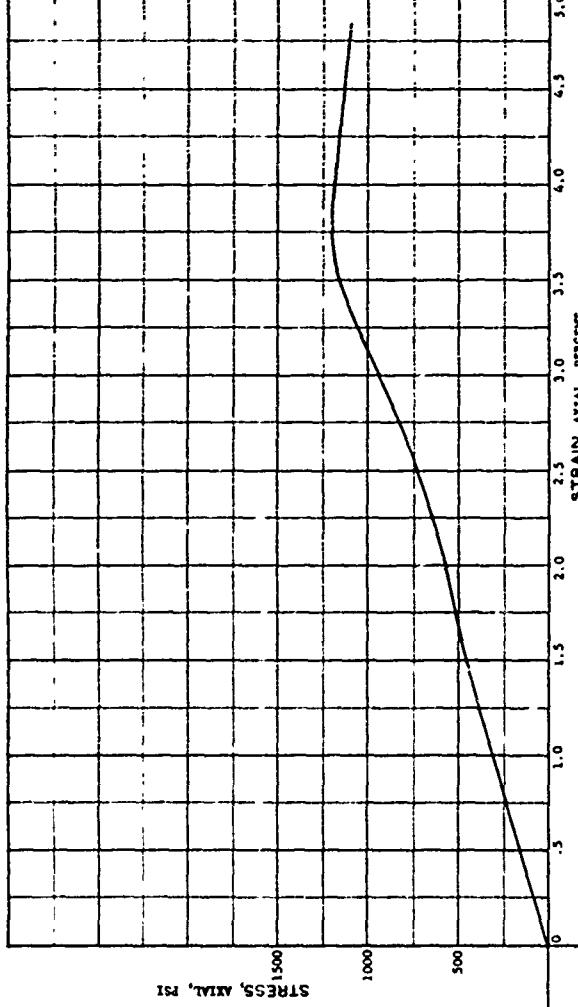
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|----------------------------------|-----------------|----------------|----|
| PROJECT | Ge Tech. B-4021 | | |
| Contract No. DACA39-67-C-0051 | | | |
| AREA | BORING NO. | SAMPLE NO. 165 | |
| | DEPTH | DATE | |
| LL | 27 | PL | 15 |
| EL | | P1 | 12 |
| DESCRIPTION McCormick Ranch Sand | | | |
| Comatant Ratio, 0.8 | | | |
| Initial Pressure, 0 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 10.47 % |
| VOID RATIO | e ₀ | 0.34 |
| SATURATION | s ₀ | 61.46 % |
| DRY DENSITY | γ_d | 124.03 PCF |
| WET DENSITY | γ_w | 137.02 PCF |
| SPECIFIC GRAVITY | G _s | 2.67 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.53 CM |



HYDROSTATIC COMPRESSION PHASE



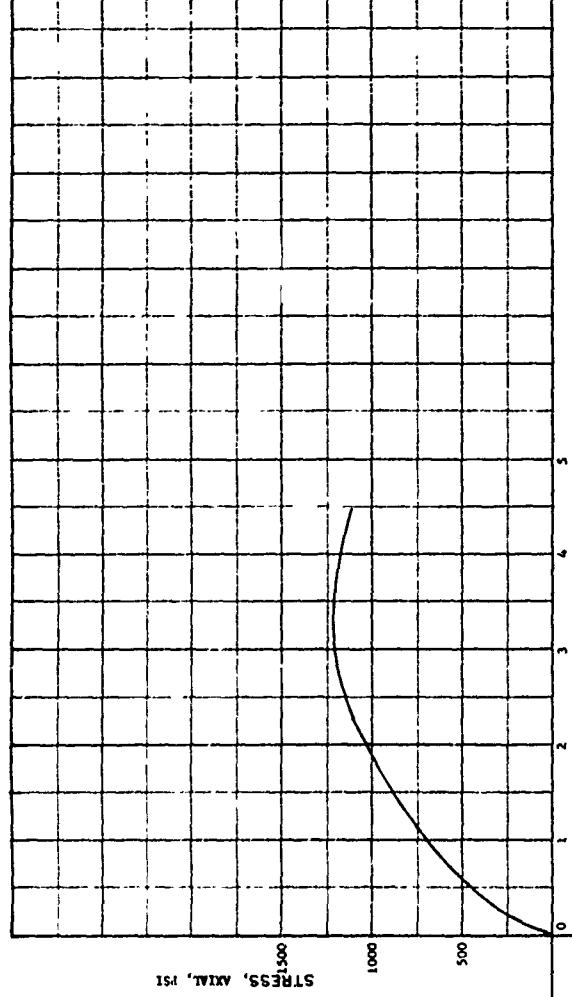
HYDROSTATIC PRESSURE, P, PSI

160

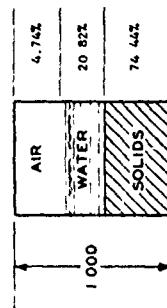
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|----------------------------------|-------------------|----|----|----|
| PROJECT | Ge-Tech B-602, | | | |
| Contract No. | DAUCA92-67-C-0031 | | | |
| AREA | | | | |
| SORING NO. | SAMPLE NO. 165 | | | |
| DEPTH | DATE | | | |
| EL. | | | | |
| LL | PL | 15 | P1 | H2 |
| DESCRIPTION McCormick Ranch Sand | | | | |
| Constant Ratio, 0.8 | | | | |
| Initial Pressure, 0 psi | | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.47 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 81.46 % |
| DRY DENSITY | γ_d | 124.03 PCF |
| WET DENSITY | γ | 137.02 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.51 CM |
| SPECIMEN HEIGHT | H_o | 7.53 CM |



HYDROSTATIC COMPRESSION PHASE



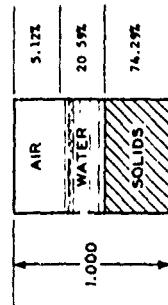
HYDROSTATIC PRESSURE, P, PSI

161

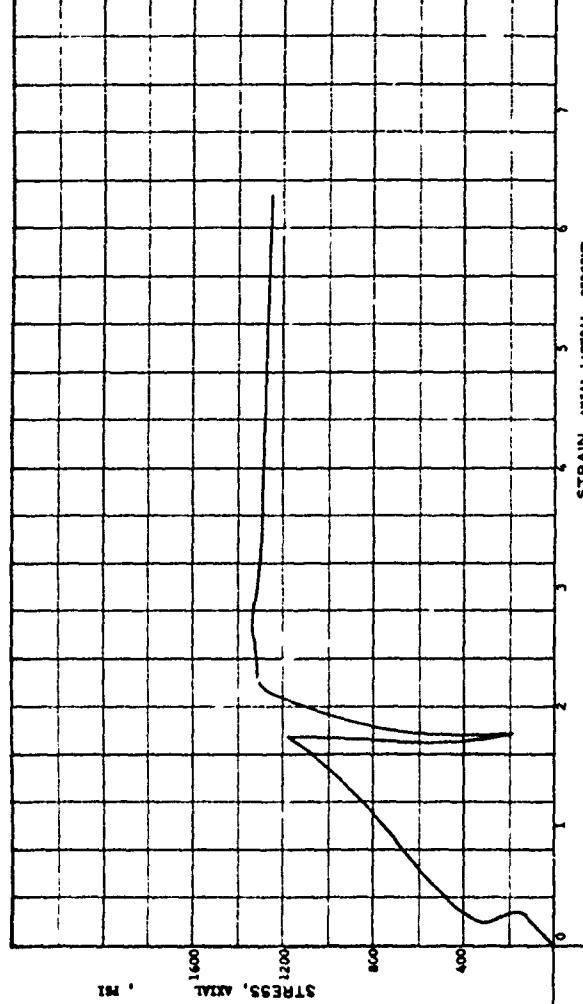
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|--|----------------|-----|
| PROJECT | Ge-Tech B-602, | |
| Contract No. DAGA9-67-C-0031 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. | 165 |
| DEPTH | DATE | |
| EL | | |
| LL | PL | 15 |
| | | P1 |
| | | 12 |
| DESCRIPTION <u>McComick Ranch Sand</u> | | |
| Content Ratio <u>0.8</u> | | |
| Initial Pressure <u>0 psi</u> | | |

VOLUMETRIC STRAIN, $\Delta V / V$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.38 | % |
| VOID RATIO | e ₀ | 0.35 | |
| SATURATION | S _o | 60.07 | % |
| DRY DENSITY | γ_d | 123.77 | pcf |
| WET DENSITY | γ | 136.61 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D _o | 3.51 | cm |
| SPECIMEN HEIGHT | H _o | 7.53 | cm |



HYDROSTATIC COMPRESSION PHASE

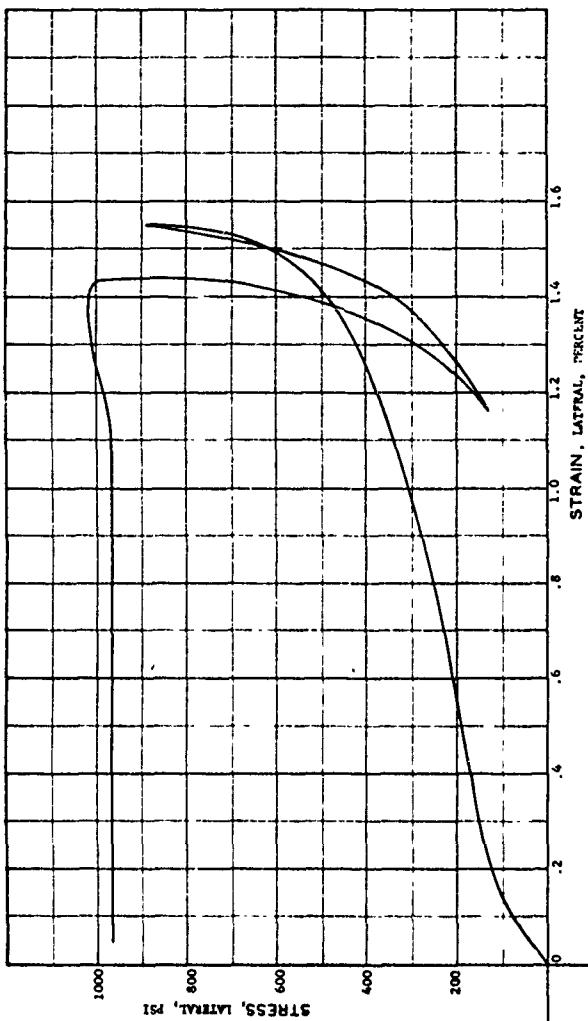


HYDROSTATIC PRESSURE, P, PSI

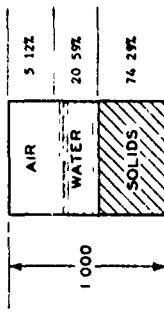
162

| | |
|--|----------------|
| PROJECT Georgia Institute of Technology, B-402 | |
| Contract No. DMAA39-67-C-0021 | |
| AREA | |
| BORING NO. | SAMPLE NO. 166 |
| DEPTH | DATE |
| EL. | |
| LL 27 | PL 15 P1 12 |
| DESCRIPTION McComb Ranch Sand | |
| Constant Stress Ratio, 0.8 | |
| Initial Pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.38 % |
| VOID RATIO | e_0 | 0.35 |
| SATURATION | S_o | 80.0 % |
| DRY DENSITY | γ_d | 123.77 PCF |
| WET DENSITY | γ | 136.61 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_0 | 3.51 CM |
| SPECIMEN HEIGHT | H_0 | 7.53 CM |



HYDROSTATIC COMPRESSION PHASE

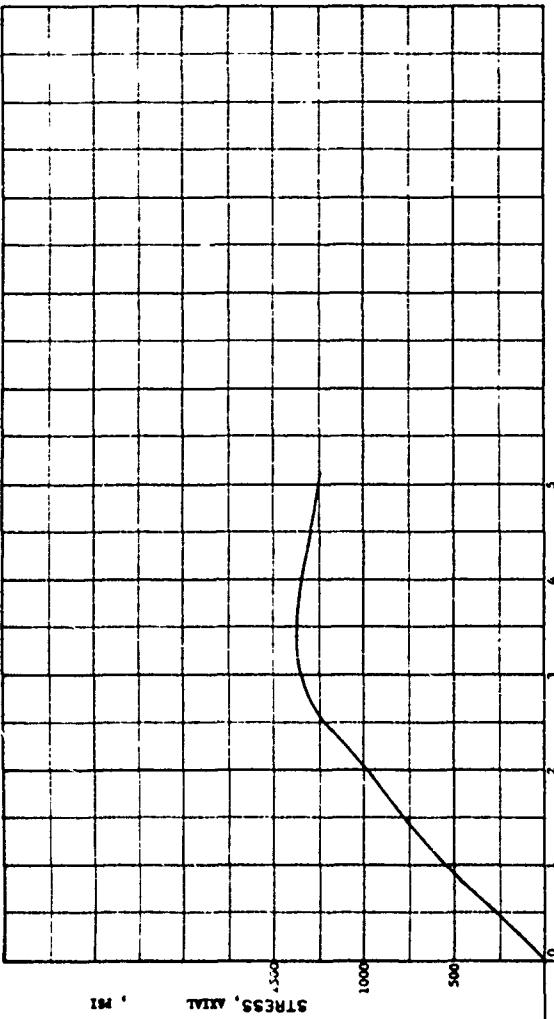
HYDROSTATIC PRESSURE, P , PSI

163

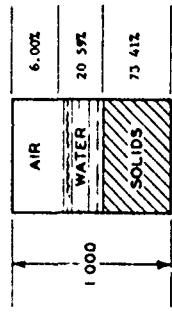
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|---|-----------------------|
| PROJECT <u>Geotechnical Institute of Technology I-602</u> | |
| Contract No. <u>DACAG3-57-C-0031</u> | |
| AREA | |
| BORING NO | SAMPLE NO. <u>166</u> |
| DEPTH | DATE |
| EL. | |
| LL | PL |
| 27 | 15 |
| | P1 |
| | 12 |
| DESCRIPTION <u>McCormick Ranch Sand</u> | |
| Constant Stress Ratio, 0.8 | |
| Initial Pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 10.50 | % |
| VOID RATIO | e_0 | 0.16 | |
| SATURATION | S _o | 77.44 | % |
| DRY DENSITY | γ_d | 122.31 | pcf |
| WET DENSITY | γ | 132.16 | pcf |
| SPECIFIC GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D _o | 3.51 | cm |
| SPECIMEN HEIGHT | H _o | 7.53 | cm |



HYDROSTATIC COMPRESSION PHASE



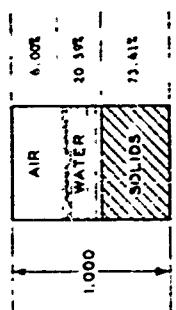
HYDROSTATIC PRESSURE, P, PSI

164

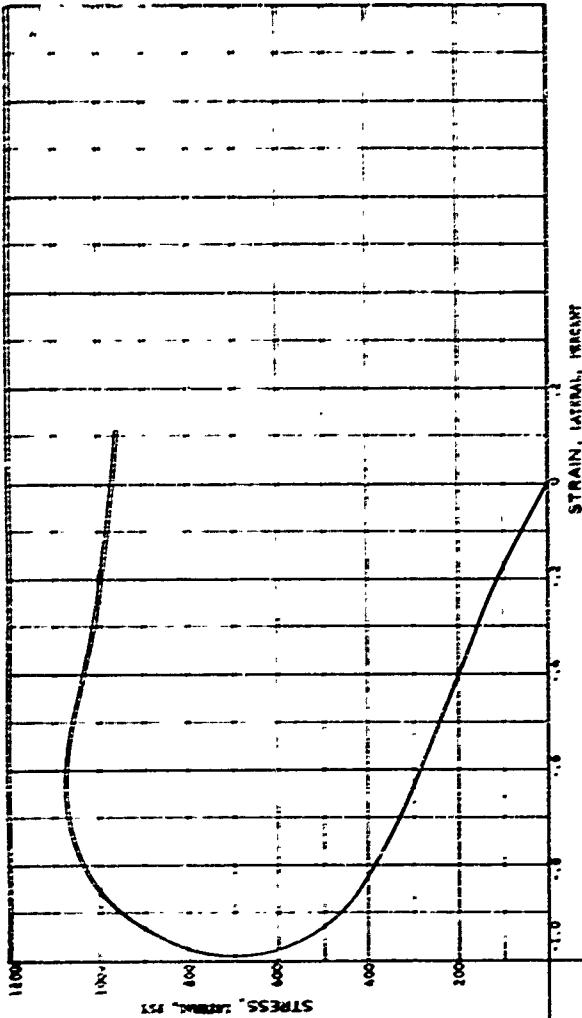
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|----------------------------------|----------------|----|----|----|
| PROJECT | Ge-Tech 8-602 | | | |
| Contract No. DACA39-67-S-0021 | | | | |
| AREA | | | | |
| BORING NO. | SAMPLE NO. 170 | | | |
| DEPTH | DATE | | | |
| ft. | mm. | | | |
| LL | PL | 15 | PL | 12 |
| DESCRIPTION McCormick Beach Sand | | | | |
| Constant Stress Ratio, 0.9 | | | | |
| Initial Pressure, 0 psi | | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | |
|-------------------|---------|
| WATER CONTENT | 10.10 |
| VOID RATIO | 0.34 |
| SATURATION | 50 |
| DRY DENSITY | 1.73 |
| WET DENSITY | 1.13 |
| GRAVITY | 2.67 |
| SPECIMEN DIAMETER | 3.11 CM |
| SPECIMEN HEIGHT | 1.11 CM |



HYDROSTATIC COMPRESSION PHASE



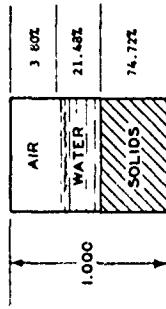
HYDROSTATIC PRESSURE, P, PSI

165

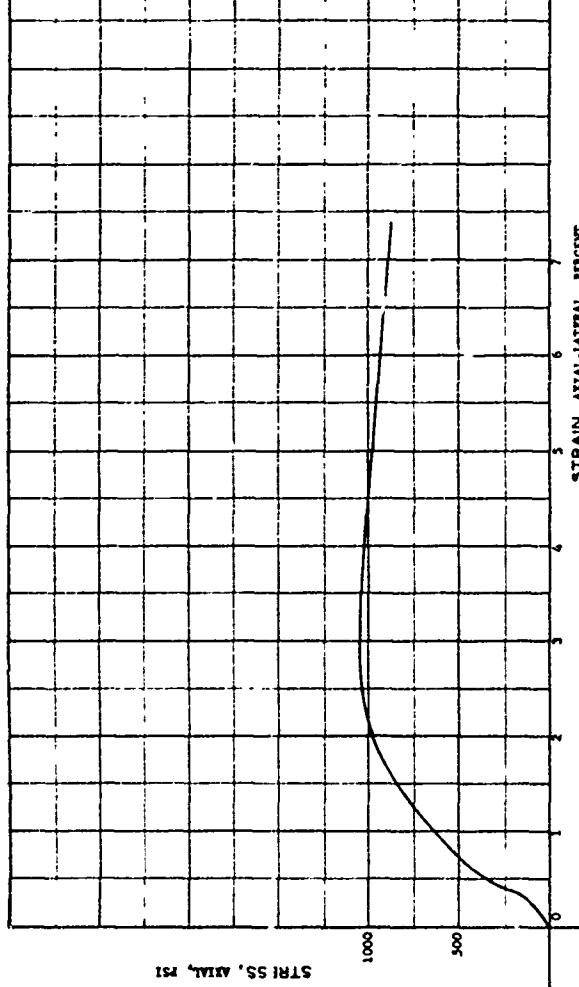
| | |
|--------------|----------------------------|
| PROJECT | Geotech. 1982 |
| Contract No. | DUCADP-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 170 |
| DEPTH | DATE |
| EL ... | |
| LL | PL 19 |
| | PL 12 |
| DESCRIPTION | McComlich Ranch, Ind. |
| | Constant Stress Ratio, 0.0 |
| | Initial pressure, 0 psi |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 10.16 % |
| VOID RATIO | e_0 | 0.34 |
| SATURATION | S_o | 54.96 % |
| DRY DENSITY | γ_d | 126.49 PCF |
| WET DENSITY | γ | 137.89 PCF |
| SPECIFIC GRAVITY | G_s | 2.67 |
| SPECIMEN DIAMETER | D_o | 3.49 CM |
| SPECIMEN HEIGHT | H_o | 7.55 CM |



HYDROSTATIC COMPRESSION PHASE

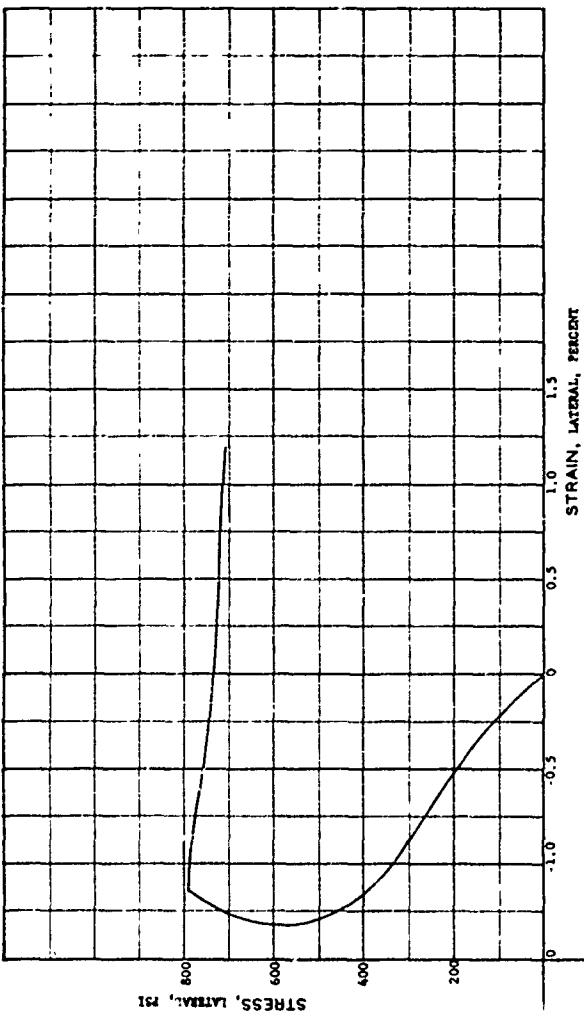


HYDROSTATIC PRESSURE, P, PSI

166

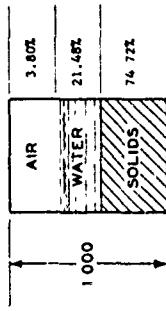
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|----------------------------------|----------------|----|----|
| PROJECT | Ga Tech S-602, | | |
| Contract No. DA-2439-67-C-0031 | | | |
| AREA | SAMPLE NO. 103 | | |
| BORING NO. | DATE | | |
| DEPTH EL. | | | |
| LL | 27 | PL | 15 |
| | | P1 | 12 |
| DESCRIPTION McCormick Ranch Sand | | | |
| Constant Stress Ratio, 0.8 | | | |
| Initial Pressure, 0 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



HYDROSTATIC COMPRESSION PHASE

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 10.76 | % |
| VOID RATIO | e_0 | 0.36 | |
| SATURATION | S_o | 64.96 | % |
| DRY DENSITY | γ_d | 126.49 | pcf |
| WET DENSITY | γ | 137.89 | pcf |
| SPCIR - GRAVITY | G_s | 2.67 | |
| SPECIMEN DIAMETER | D_o | 3.49 | cm |
| SPECIMEN HEIGHT | H_o | 7.55 | cm |



HYDROSTATIC PRESSURE, P, PSI

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| PROJECT | | Geotech B-602: | | |
|----------------------------|----|------------------|-----|-------|
| Contract No. | | DACA39-67-C-0031 | | |
| AREA | | | | |
| BORING NO. | | SAMPLE NO. | 1B3 | |
| DEPTH | | DATE | | |
| EL | | | | |
| L.L. | 27 | PL | 15 | PL 12 |
| DESCRIPTION | | | | |
| McCorckick Ranch Sand | | | | |
| Constant Stress Ratio, 0.6 | | | | |
| Initial Pressure, 0 psi | | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

Group A

Triaxial Tests

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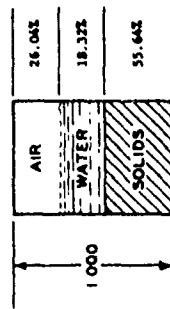
Group A

Triaxial Tests

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171

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 12.19 % |
| VOID RATIO | e_0 | 0.60 |
| SATURATION | S_o | 41.29 % |
| DRY DENSITY | γ_d | 93.74 PCF |
| WET DENSITY | γ | 105.16 PCF |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.50 CM |
| SPECIMEN HEIGHT | H_o | 7.62 CM |

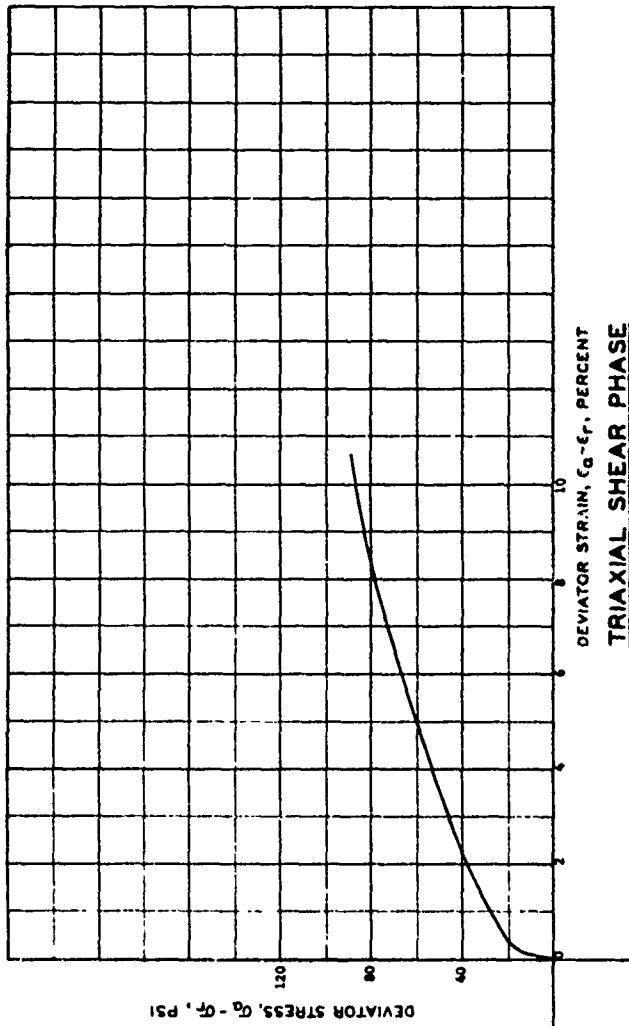


HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

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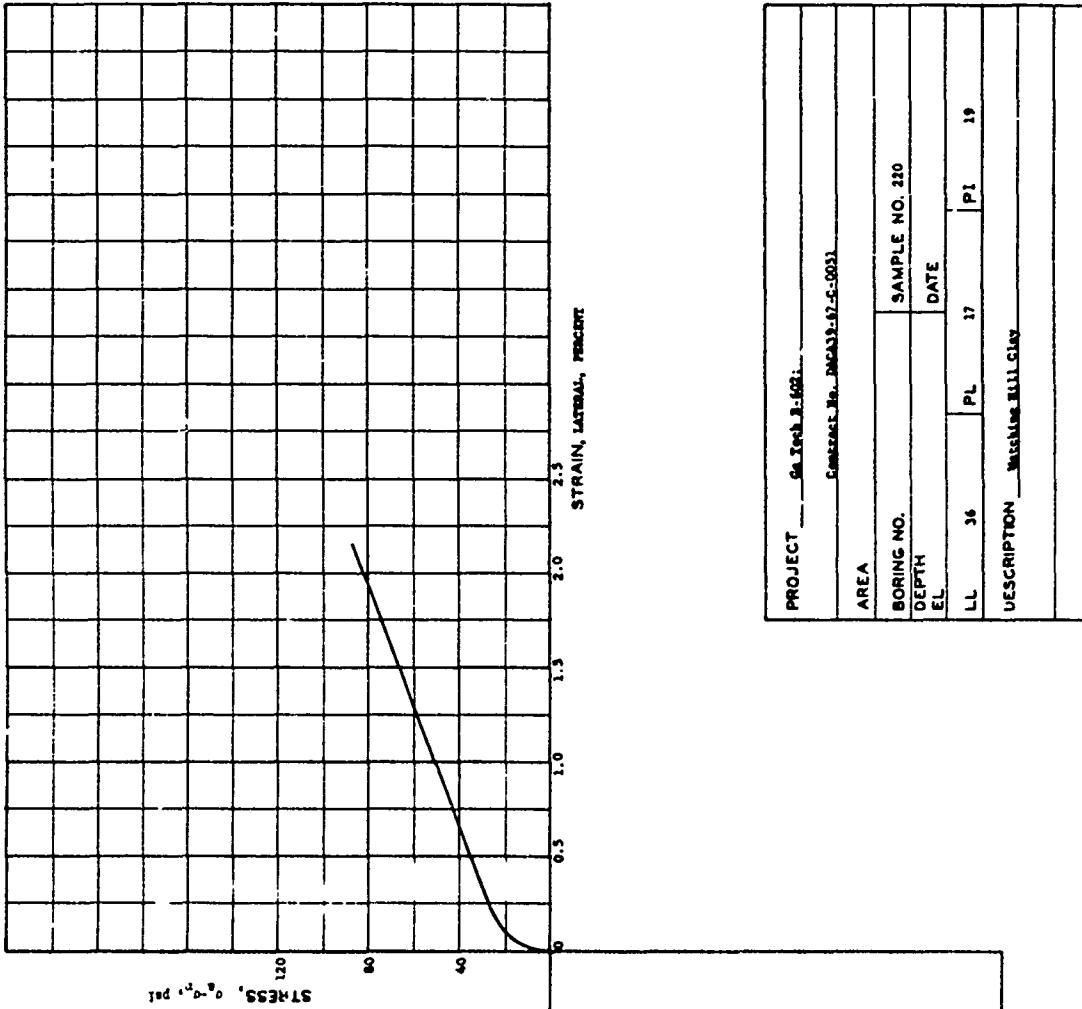
173



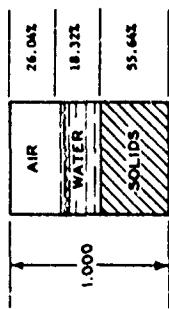
TRIAXIAL SHEAR PHASE

| | |
|----------------------------------|---------------|
| PROJECT | Ge Tech 3-407 |
| Coreface No. | DMC-88-C-0031 |
| AREA | |
| BORING NO | SAMPLE NO. |
| DEPTH | DATE |
| EL | |
| LL | PL |
| | 17 |
| | PL |
| | 19 |
| DESCRIPTION - WATERSIDE MUD CLAY | |
| - | |
| - | |
| - | |
| - | |
| - | |
| - | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.19 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S _o | 41.29 | % |
| DRY DENSITY | γ_d | 93.74 | pcf |
| WET DENSITY | γ | 105.18 | pcf |
| SPECIFIC GRAVITY | G_d | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |



HYDROSTATIC COMPRESSION PHASE

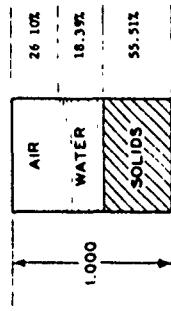
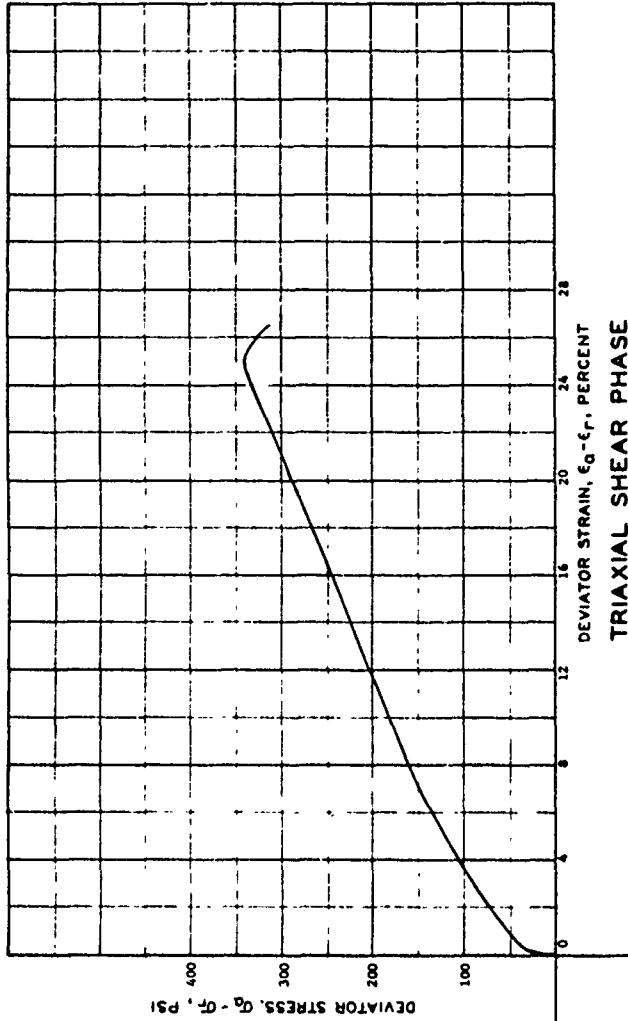
HYDROSTATIC PRESSURE, P, PSI

174

| | |
|--|----------------|
| PROJECT | Geotech. I-602 |
| Concrete No. 20231-12-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 210 |
| DEPTH | DATE |
| EL. | |
| LL | PL |
| 36 | 17 |
| | P1 |
| | 19 |
| DESCRIPTION <i>Mechanically Treated Clay</i> | |
| | |
| | |
| | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.27 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | s ₀ | 41.35 % |
| DRY DENSITY | γ_d | 93.55 PCF |
| WET DENSITY | γ_w | 105.01 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE

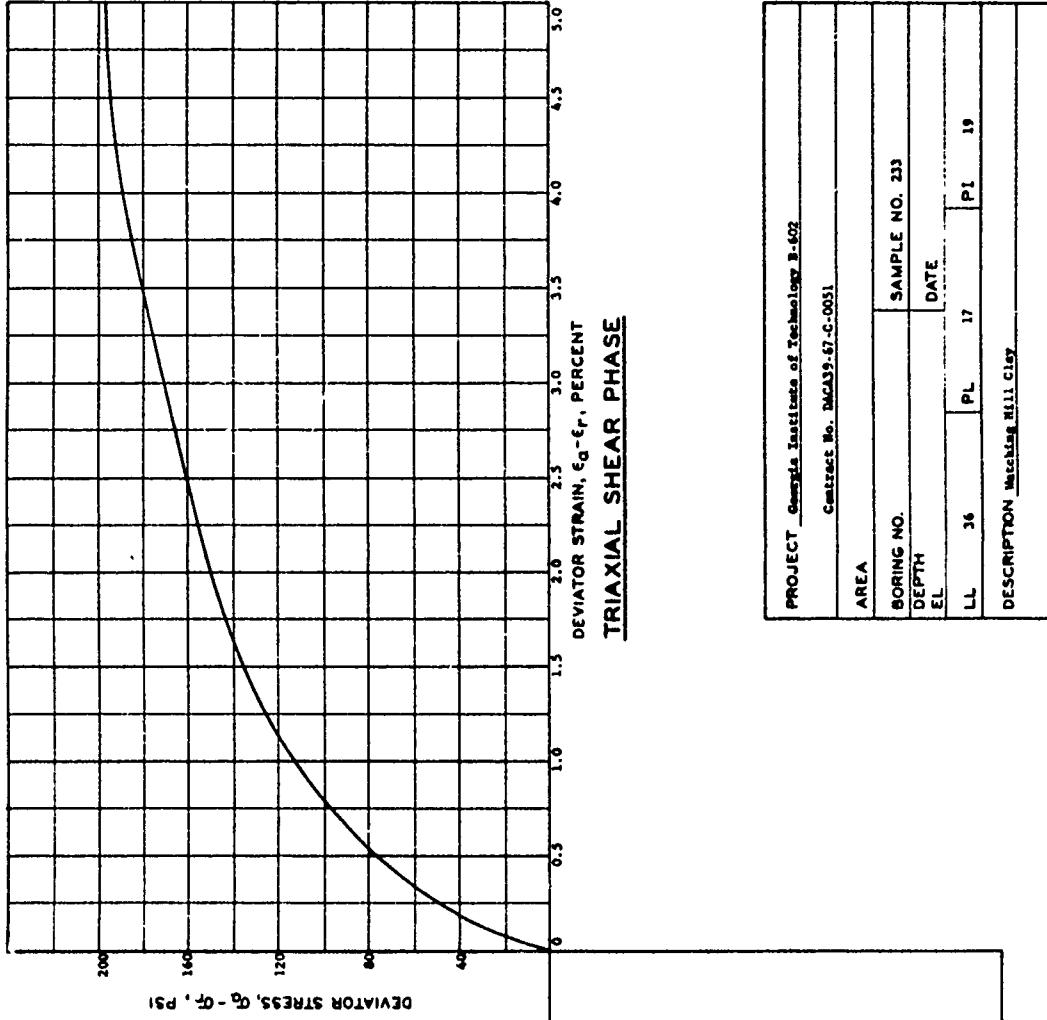
HYDROSTATIC PRESSURE, P, PSI

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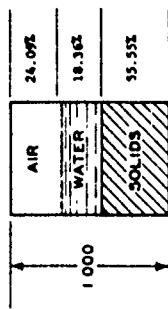
| | |
|---------------------------------|----------------|
| PROJECT | Geotech E-602 |
| Sample No. | DMEAS-67-C-001 |
| AREA | |
| BORING NO. | SAMPLE NO. 232 |
| DEPTH | DATE |
| EL | |
| LL | PL 17 |
| | PT 19 |
| DESCRIPTION: Watchung Hill Clay | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.24 % |
| VOID RATIO | e ₀ | 0.40 |
| SATURATION | S ₀ | 41.30 % |
| DRY DENSITY | γ_d | 93.60 PCF |
| WET DENSITY | γ' | 105.05 PCF |
| SPECIFIC GRAVITY | G_s | 2.10 |
| SPECIMEN DIAMETER | D ₀ | 2.59 CM |
| SPECIMEN HEIGHT | H ₀ | 7.52 CM |
| SPECIMEN HEIGHT | H ₀ | 7.52 CM |



HYDROSTATIC COMPRESSION PHASE



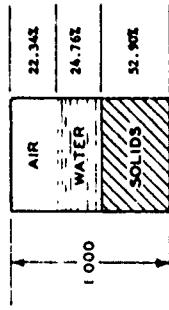
HYDROSTATIC PRESSURE, P, PSI

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| | | |
|--------------------------------------|---------------------------------------|----|
| PROJECT | Georgia Institute of Technology B-002 | |
| Contract No. | DMC35-67-C-0031 | |
| AREA | | |
| BORING NO. | SAMPLE NO. 233 | |
| DEPTH | DATE | |
| EL. | PL | 17 |
| LL | PL | 19 |
| DESCRIPTION <u>Muchale Mill C-57</u> | | |
| | | |
| | | |
| | | |

VOLUME STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|--------------------|------------|--------|-----|
| WATER CONTENT | W | 17.33 | % |
| VOID RATIO | e_0 | 0.89 | |
| SATURATION | S_o | 52.56 | % |
| DRY DENSITY | γ_d | 89.13 | pcf |
| WET DENSITY | γ | 104.58 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| CONFINING DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.64 | cm |

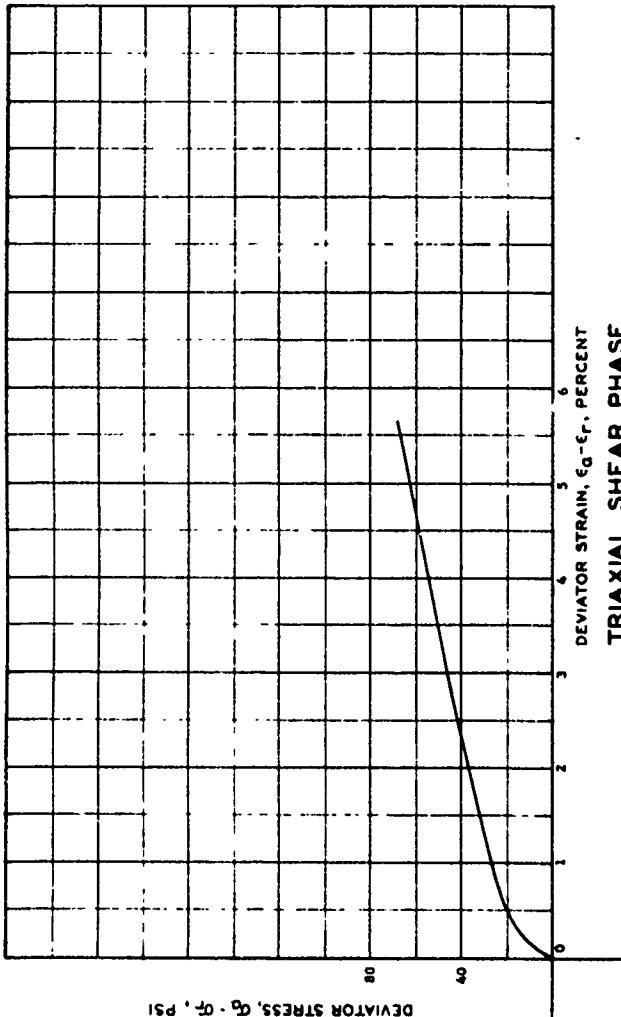


HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P , PSI

HYDROSTATIC PRESSURE, P , PSI

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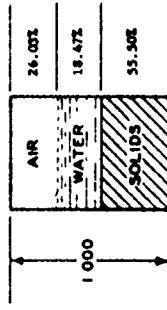


DEVIATOR STRAIN, $\epsilon_d - \epsilon_r$, PERCENT TRIAXIAL SHEAR PHASE

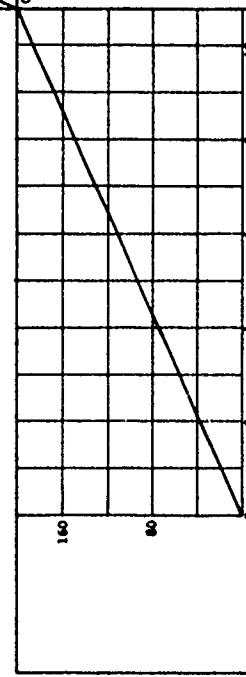
| | | | | |
|-----------------------------|---------------------------------------|----|----|----|
| PROJECT | Georgia Institute of Technology S-602 | | | |
| Contract No. | DA-39-67-C-0051 | | | |
| AREA | | | | |
| BORING NO. | SAMPLE NO. 214 | | | |
| DEPTH | DATE | | | |
| EL. | | | | |
| LL | PL | 17 | P1 | 19 |
| DESCRIPTION Watch Hill Clay | | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.33 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S _o | 41.52 | % |
| DRY DENSITY | γ_d | 93.51 | pcf |
| WET DENSITY | γ_w | 105.03 | pcf |
| SPECIFIC GRAVITY | G _s | 2.67 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |

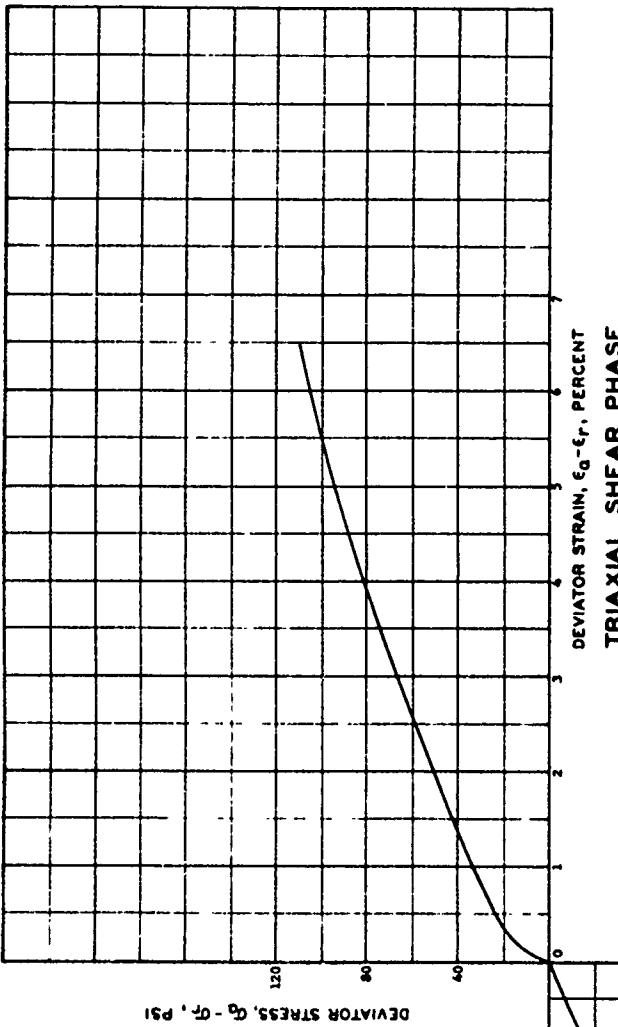


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

178

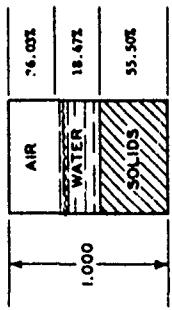
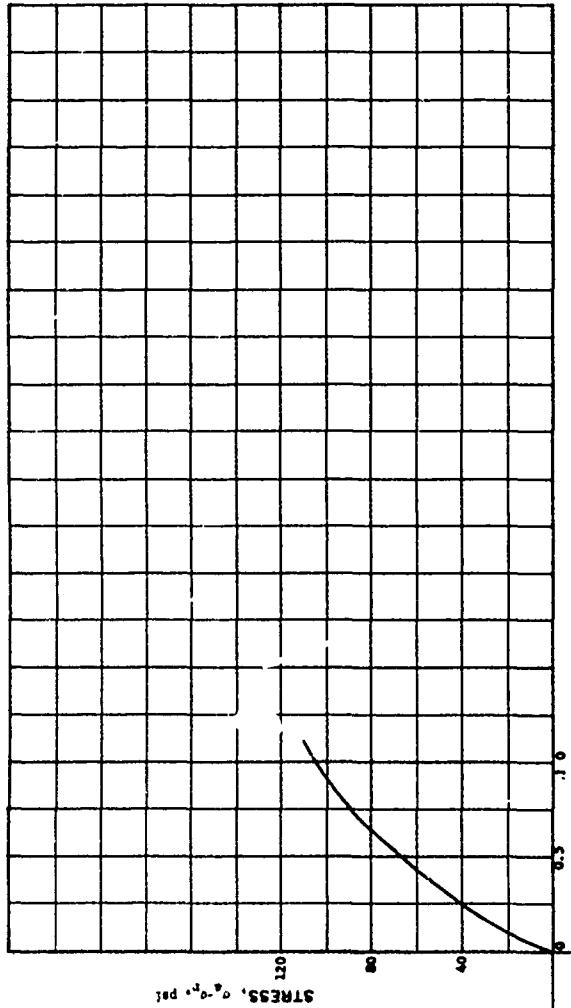


TRIAXIAL SHEAR PHASE

| | |
|---------------------------------|-----------------|
| PROJECT | Geotech 3-402; |
| Contract No. | DMA09-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 212 |
| DEPTH | DATE |
| EL. | |
| LL. | PL. 17 |
| | P1 19 |
| DESCRIPTION Wachusett Hill Clay | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|--------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.33 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | s ₀ | 41.52 | % |
| DRY DENSITY | γ_d | 93.51 | pcf |
| WET DENSITY | γ | 105.03 | pcf |
| SPECIFIC GRAVITY | G _a | 2.67 | |
| CONFIRMED DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |



HYDROSTATIC COMPRESSION PHASE

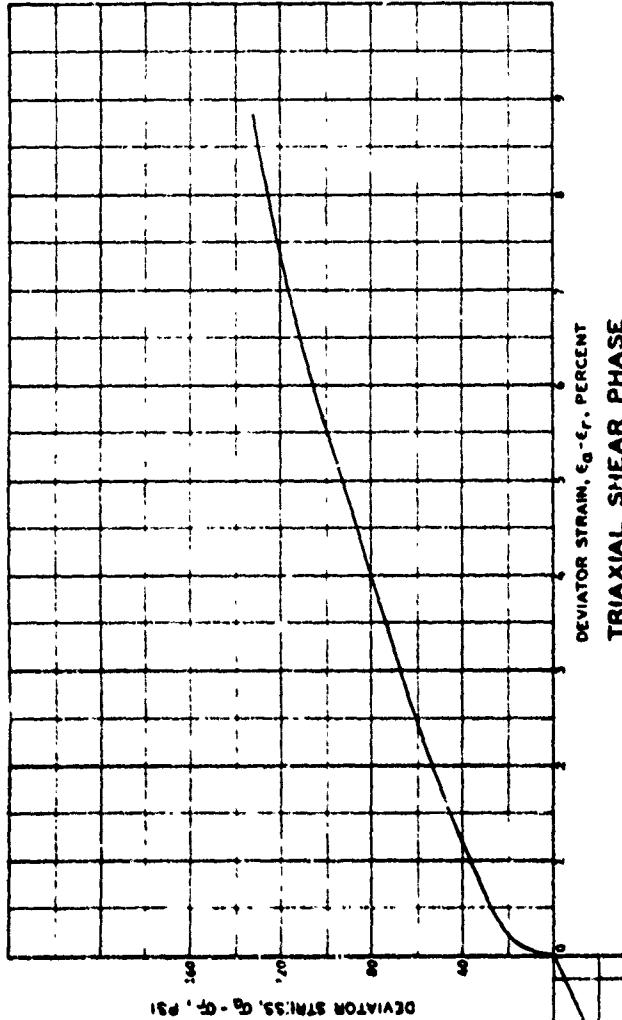
HYDROSTATIC PRESSURE, P, PSI

179

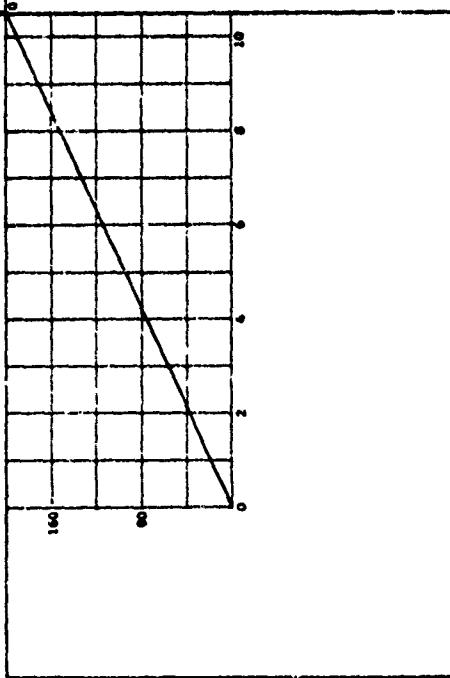
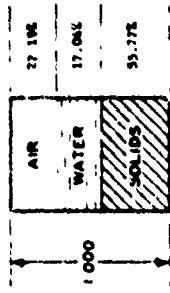
| | |
|---------------------------------|-----------------|
| PROJECT | Geotech S-4021; |
| Contract No. IMPASS-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 212 |
| DEPTH | DATE |
| EL | |
| LL | PL 17 |
| | P1 19 |
| DESCRIPTION Weathered Mill Clay | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.31 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S _o | 36.32 | % |
| DRY DENSITY | γ _d | 93.97 | pcf |
| WET DENSITY | γ _w | 104.60 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.81 | cm |



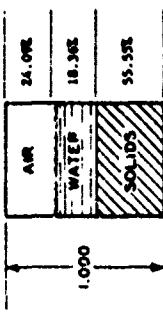
HYDROSTATIC COMPRESSION PHASE



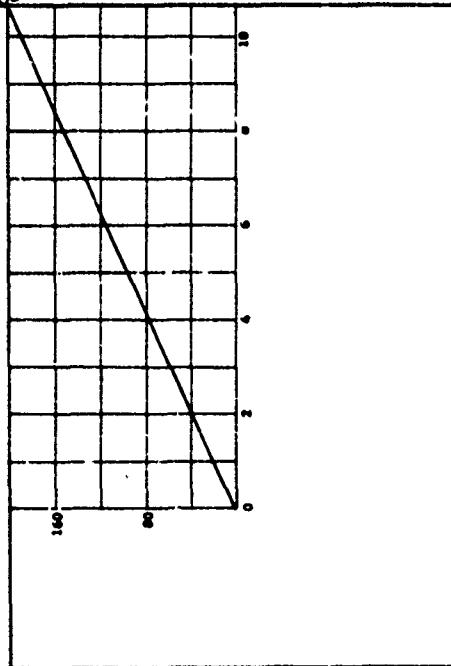
HYDROSTATIC PRESSURE, P, PSI

| | |
|-------------------------------|-------------------|
| PROJECT | Soil Tech B-602 |
| Contract No. | DMACC-67-C-0031 |
| AREA | |
| BORING NO | SAMPLE NO 213 |
| DEPTH | DATE |
| EL. | |
| LL | PL 17 |
| | P _f 19 |
| DESCRIPTION: WATERSATILL CLAY | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.24 | % |
| VOID RATIO | e ₀ | 0.98 | |
| SATURATION | S _o | 41.30 | % |
| DRY DENSITY | γ_d | 93.60 | pcf |
| WET DENSITY | γ_w | 105.65 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| INTERNAL DIAMETER | D _o | 3.49 | cm |
| SPECIMEN HEIGHT | H _o | 7.62 | cm |

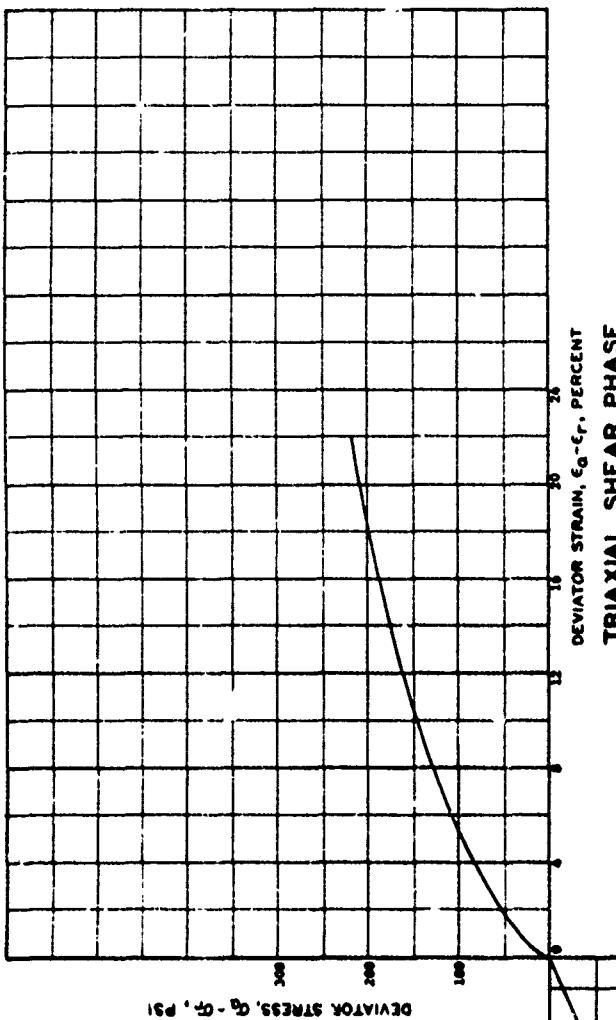


HYDROSTATIC COMPRESSION PHASE



DEVATOR STRESS, σ_d - σ_3 , kPa

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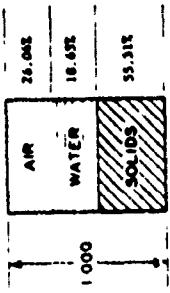


DEVIATOR STRAIN, ϵ_d - ϵ_r , PERCENT
TRIAXIAL SHEAR PHASE

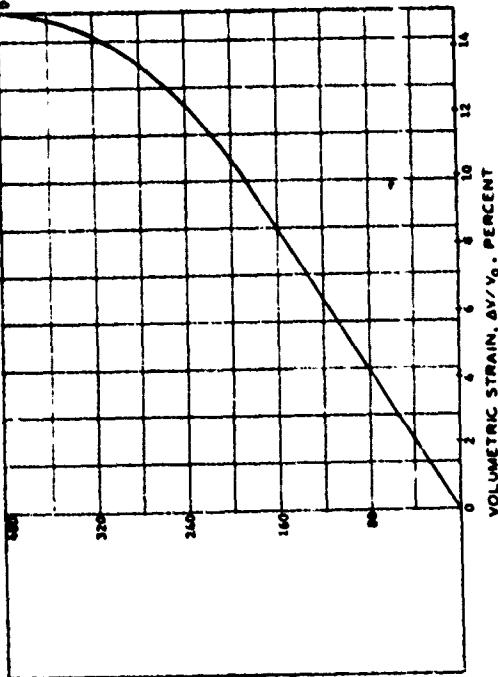
| | |
|---|-----------------------|
| PROJECT <u>Geotechnical Institute of Technology B-602</u> | |
| Contract No. <u>BAC339-67-C-0051</u> | |
| AREA | |
| BORING NO. | SAMPLE NO. <u>223</u> |
| DEPTH EL | DATE |
| LL | PL |
| PI | 17 |
| PI | 19 |
| DESCRIPTION <u>Wetzel Hill City</u> | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

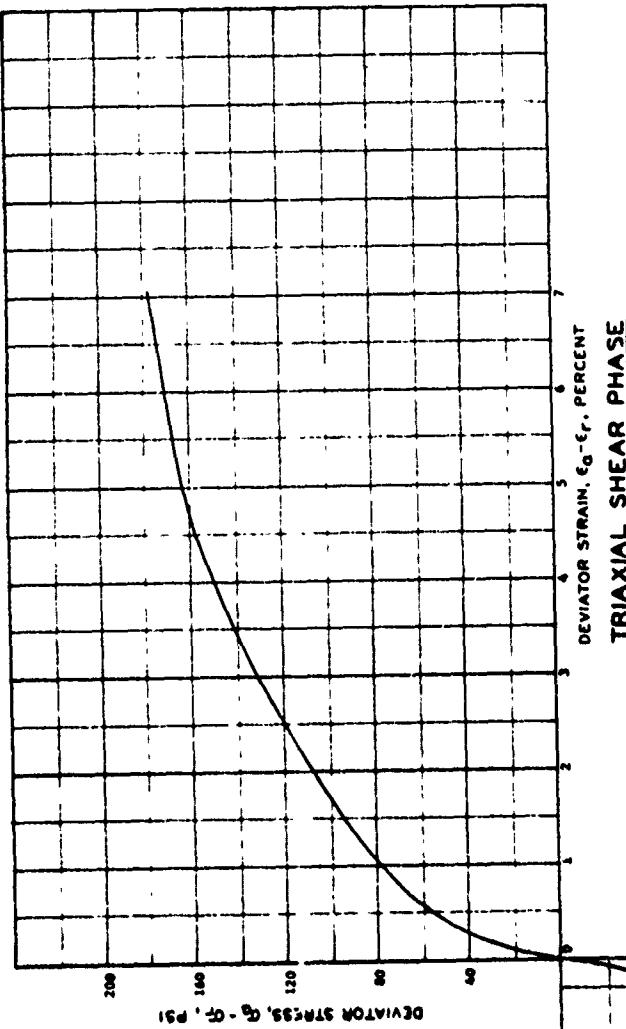
| | | |
|-------------------|-------|------------|
| WATER CONTENT | 12.49 | % |
| VOID RATIO | 0.81 | |
| SATURATION | 50 | 41.73 % |
| DRY DENSITY | 72 | 99.19 PCF |
| WET DENSITY | 77 | 104.02 PCF |
| SPECIFIC GRAVITY | Gs | 2.70 |
| SPECIMEN DIAMETER | D0 | 3.90 CM |
| SPECIMEN HEIGHT | H0 | 7.50 CM |



HYDROSTATIC COMPRESSION PHASE



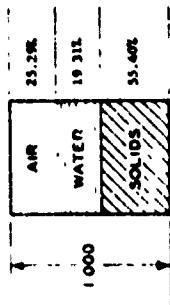
VOLUMETRIC STRAIN, $\Delta V/V_0$ - PERCENT



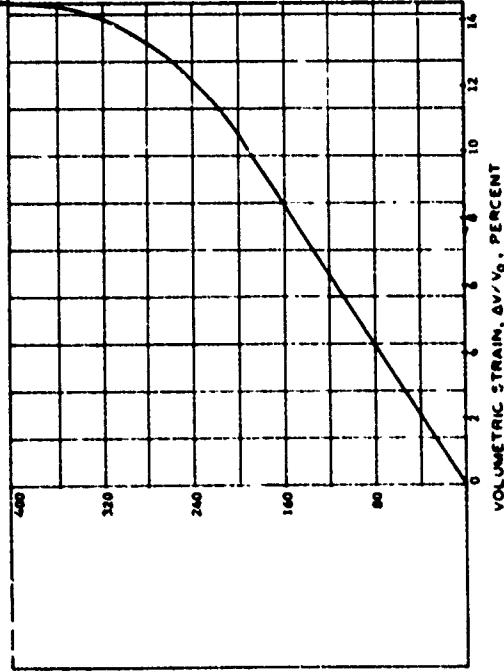
DEVIATOR STRAIN, $E_Q - E_f$, PERCENT
TRIAXIAL SHEAR PHASE

| | |
|---------------------------------|-----------------|
| PROJECT | Ge Tech B-602 |
| Contract No. | DAC39-67-C-0031 |
| AREA | SAMPLE NO. 211 |
| BORING NO | DATE |
| DEPTH | |
| EL. | |
| L.L. | PL |
| | 17 |
| | P1 |
| | 19 |
| DESCRIPTION: Marching Mill Clay | |

| | | | |
|----------------------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.91 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S _g | 43.31 | % |
| DRY DENSITY | γ _d | 91.34 | pcf |
| WET DENSITY | γ _w | 105.39 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER D ₀ | D ₀ | 3.69 | cm |
| SPECIMEN HEIGHT H ₀ | H ₀ | 7.61 | cm |

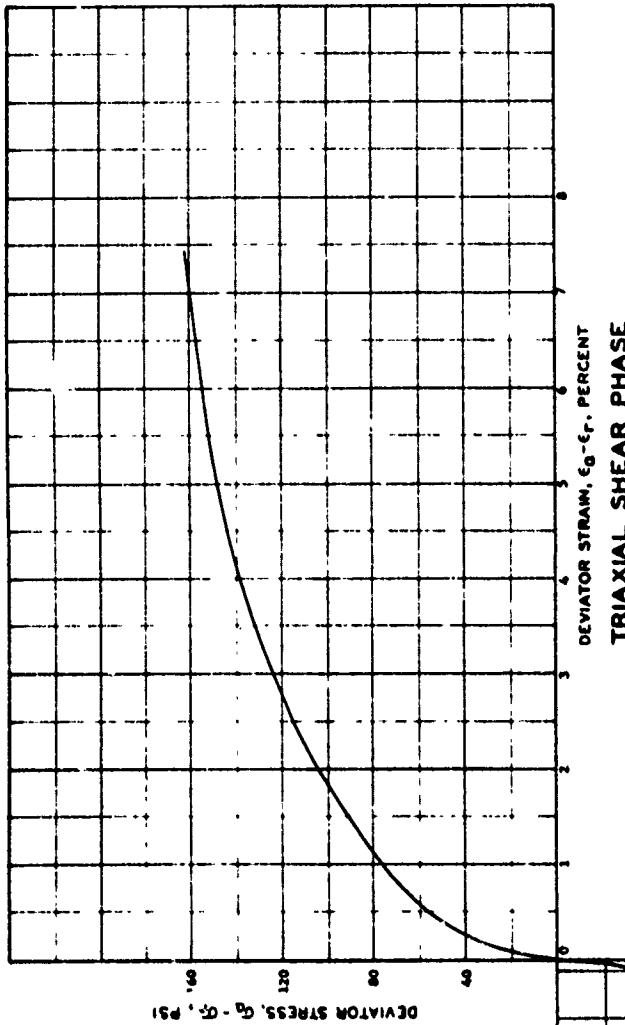


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

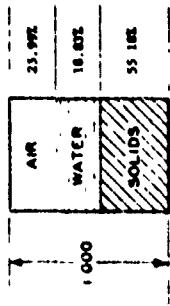
183



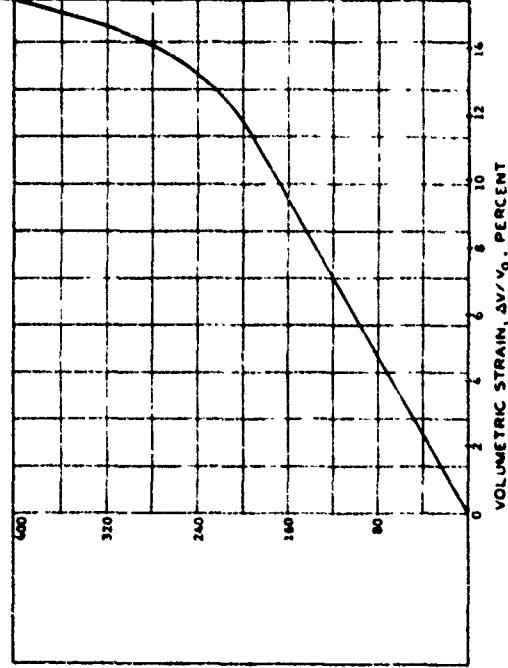
DEVIATOR STRAIN, $\epsilon_d - \epsilon_r$, PERCENT
TRIAXIAL SHEAR PHASE

| | |
|------------------------------------|------------------|
| PROJECT | Geotech B-402 |
| Coreface No. | DM0405-07-C-0031 |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL. | |
| L.L. | 36 |
| P.L. | 17 |
| P _f | 19 |
| DESCRIPTION Wachapreague Mill Clay | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.64 | % |
| VOID RATIO | e ₀ | 0.61 | |
| SATURATION | S _o | 42.01 | % |
| DRY DENSITY | γ_d | 62.97 | pcf |
| WET DENSITY | γ | 106.72 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |

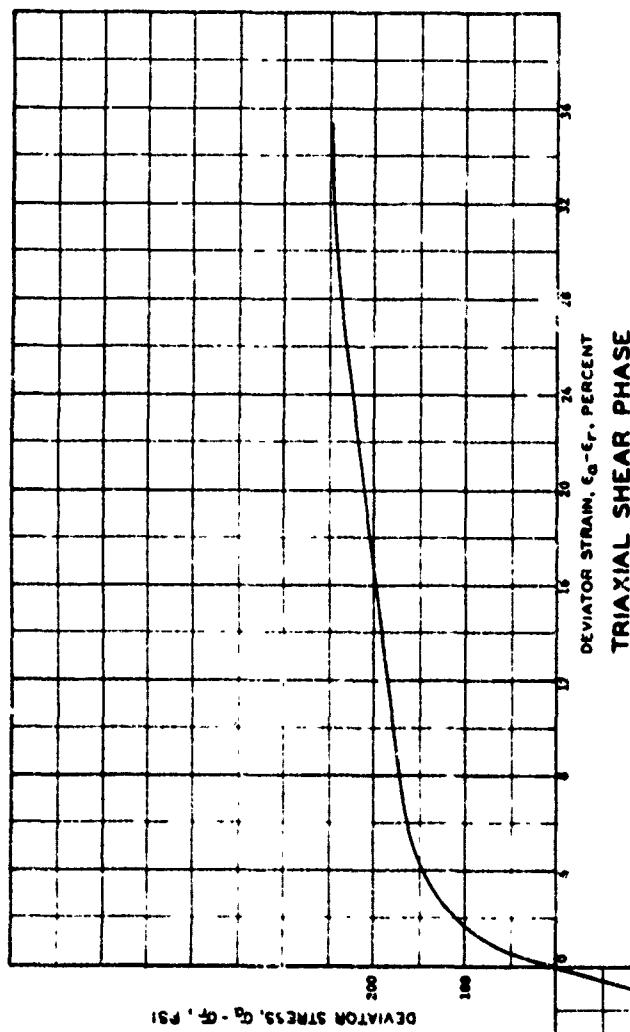


HYDROSTATIC COMPRESSION PHASE



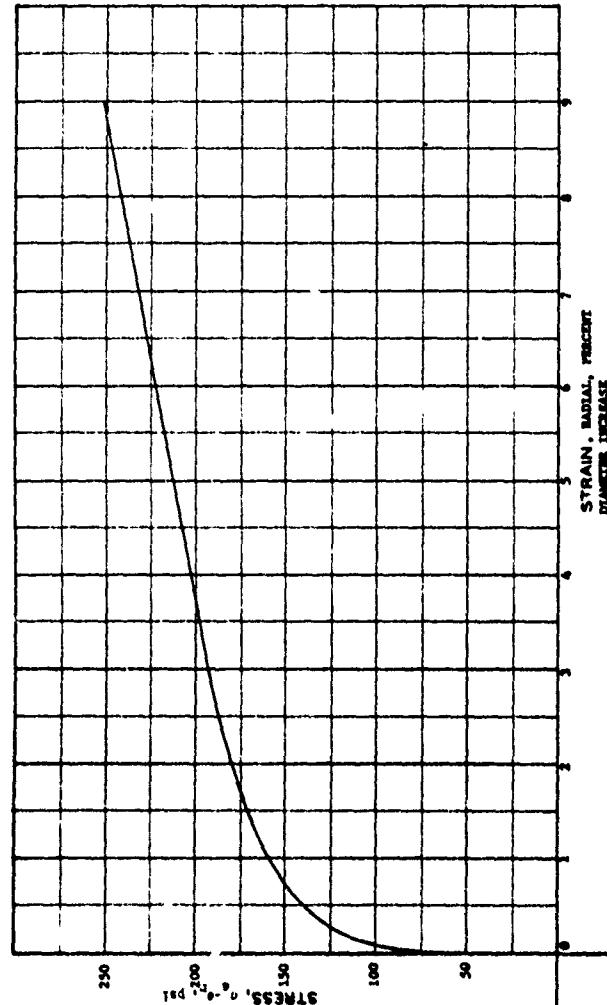
HYDROSTATIC PRESSURE, P, PSI

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DEVIATOR STRAIN, $\epsilon_d - \epsilon_c$, PERCENT
TRIAXIAL SHEAR PHASE

| | |
|---------------------------------|----------------|
| PROJECT | G-10b 1-62 |
| Contract No. DMCA967-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 218 |
| DEPTH | DATE |
| EL. | PL. U. PI. 19 |
| LL | |
| DESCRIPTION: Maccline 3011 G-19 | |



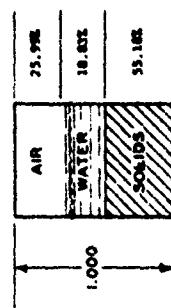
STRAIN, RADIAL, PERCENT
DIAMETER INCREASE

| | |
|--------------|------------------|
| PROJECT | Ge Tech S-602 |
| Contract No. | DA-239-67-C-0031 |
| <hr/> | |
| AREA | |
| BORING NO. | SAMPLE NO. 218 |
| DEPTH E.L. | DATE |
| L.L. 36 | PL 17 P1 19 |

DESCRIPTION Holcim Mill City

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

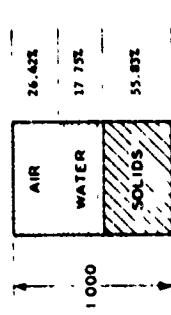
| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.6% |
| VOID RATIO | e_0 | 0.81 |
| SATURATION | S_o | 42.01% |
| DRY DENSITY | γ_d | 92.97pcf |
| WET DENSITY | γ | 104.72pcf |
| SPECIFIC GRAVITY | C_g | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.90 cm |
| SPECIMEN HEIGHT | H_o | 7.62 cm |



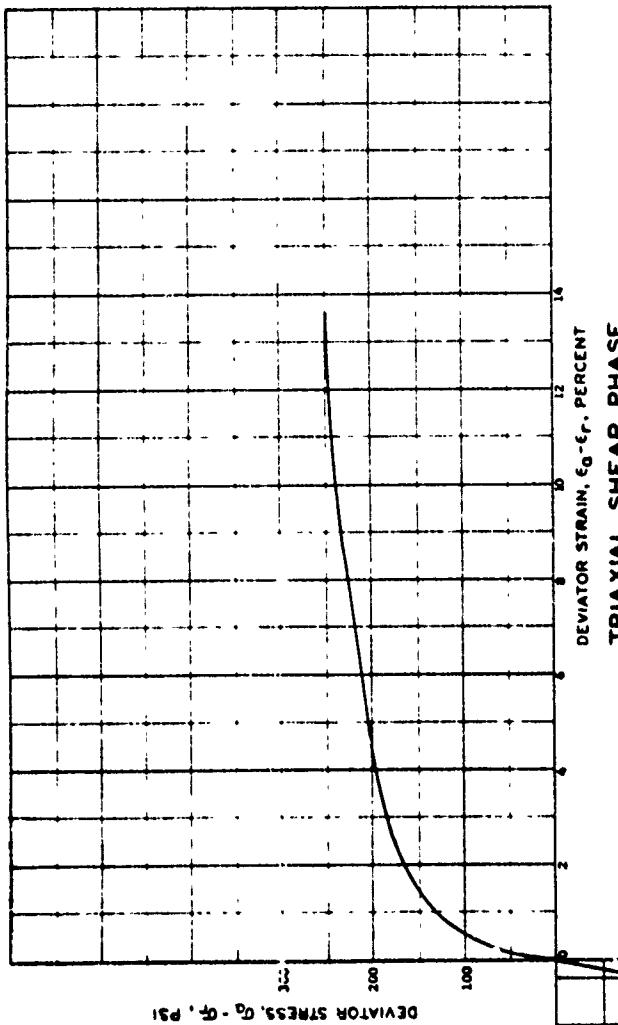
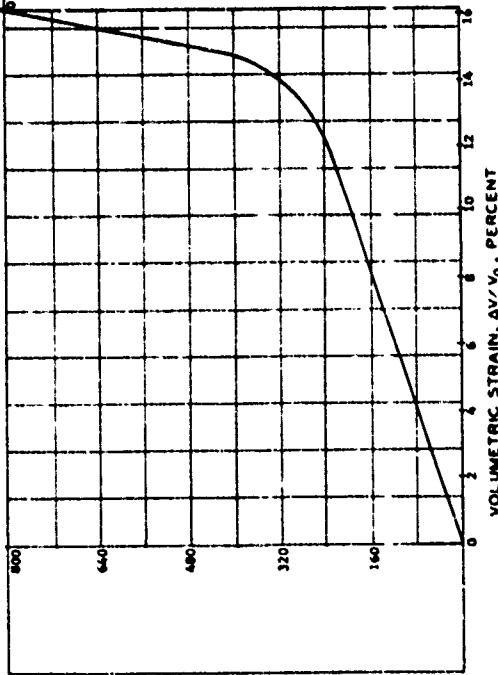
HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P , PSI

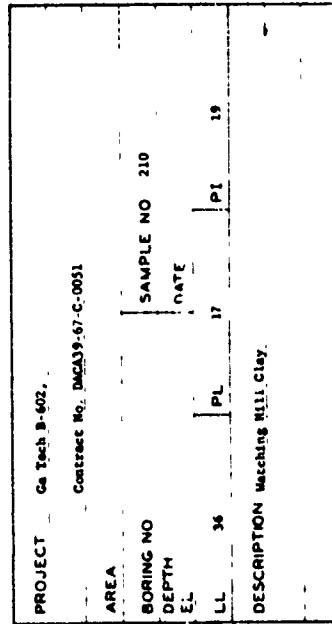
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.77 | % |
| V.C:D RATIO | e ₀ | 0.79 | |
| SATURATION | S ₀ | 40.17 | % |
| DRY DENSITY | D _d | 54.07 | pcf |
| WET DENSITY | D _w | 105.14 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.59 | cm |



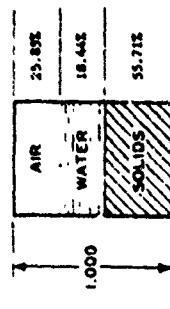
HYDROSTATIC COMPRESSION PHASE



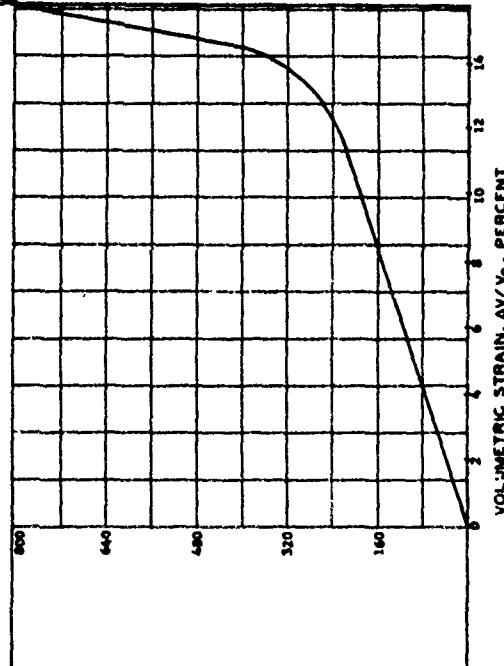
TRIAXIAL SHEAR PHASE



| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.26 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S ₀ | 41.63 % |
| DRY DENSITY | γ_d | 53.87pcf |
| WET DENSITY | γ_w | 105.37pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 cm |
| SPECIMEN HEIGHT | H ₀ | 2.00 cm |

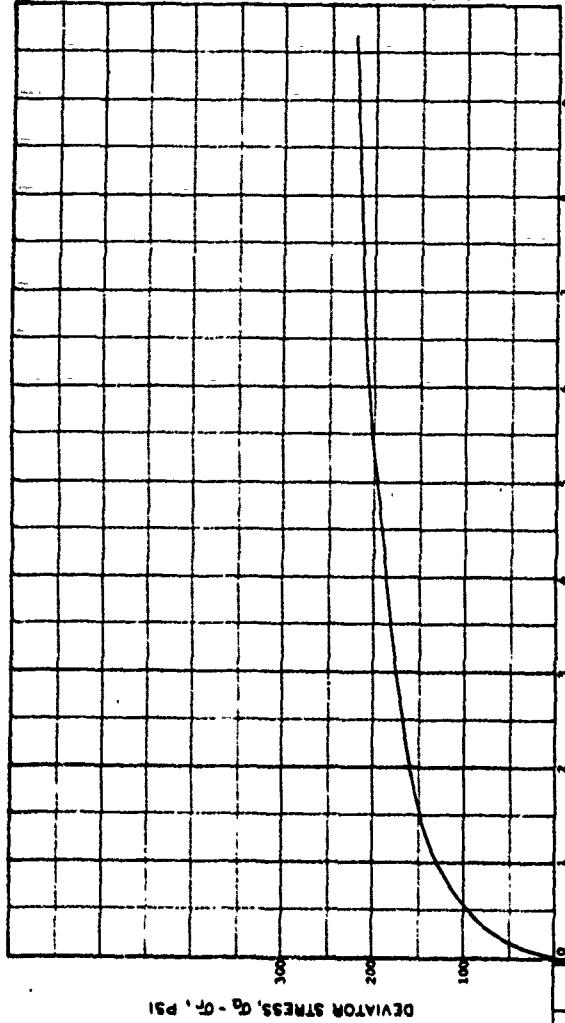


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P · PSI

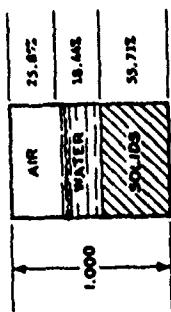
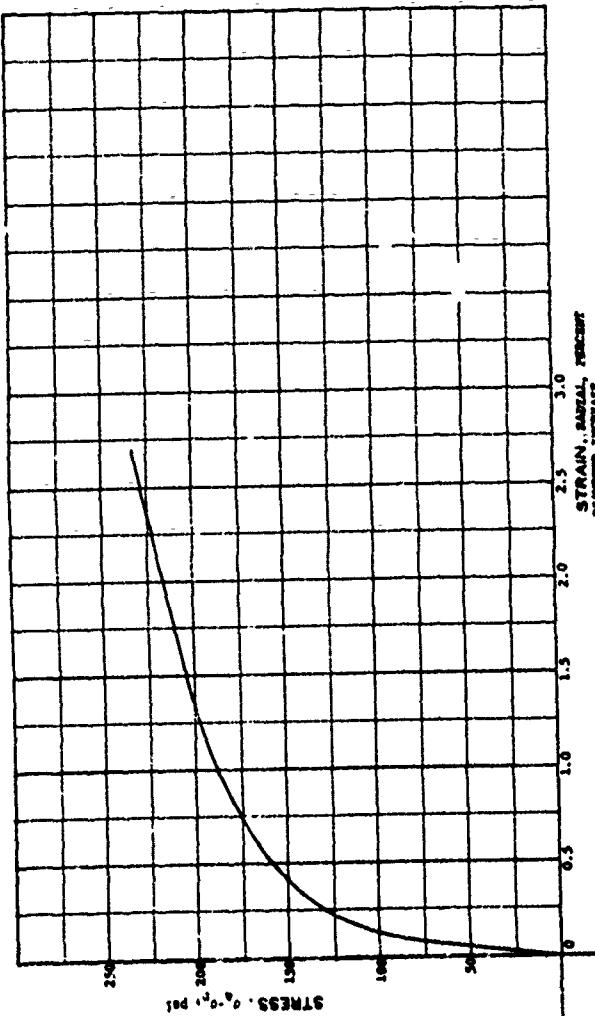
187



TRIAXIAL SHEAR PHASE

| | |
|--------------------------------|----------------|
| PROJECT | Geotech B-402; |
| Contract No. DIA09-67-C-0061 | |
| AREA | |
| BORING NO. | SAMPLE NO. 216 |
| DEPTH | DATE |
| EL. | |
| LL | PL |
| 34 | 17 |
| | PL |
| | 19 |
| DESCRIPTION Watchdog Hill Clay | |

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.26 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S ₀ | 41.63 % |
| DRY DENSITY | D ₀ | 99.47 PCF |
| WET DENSITY | γ' | 105.37 PCF |
| SPECIFIC GRAVITY | G ₀ | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.60 CM |



HYDROSTATIC COMPRESSION PHASE

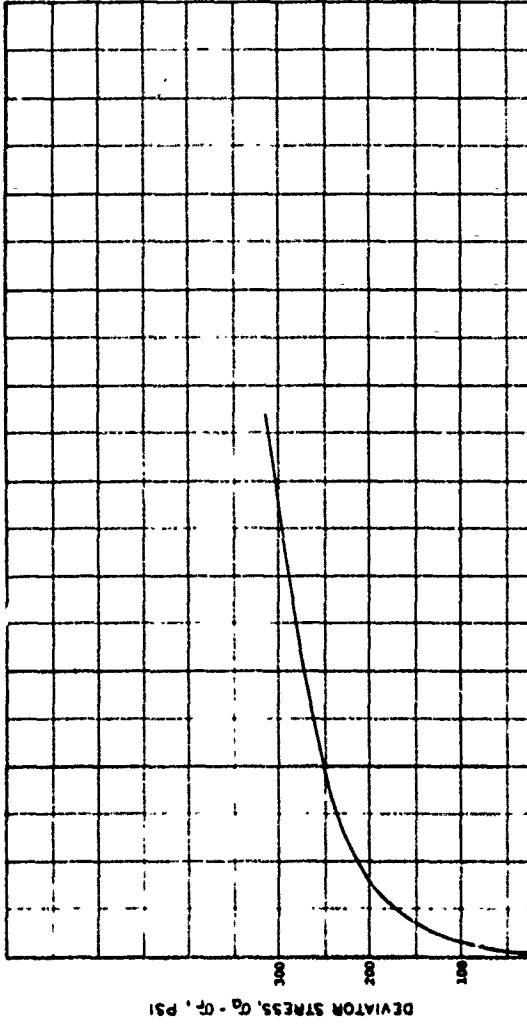
HYDROSTATIC PRESSURE, P, PSI

188

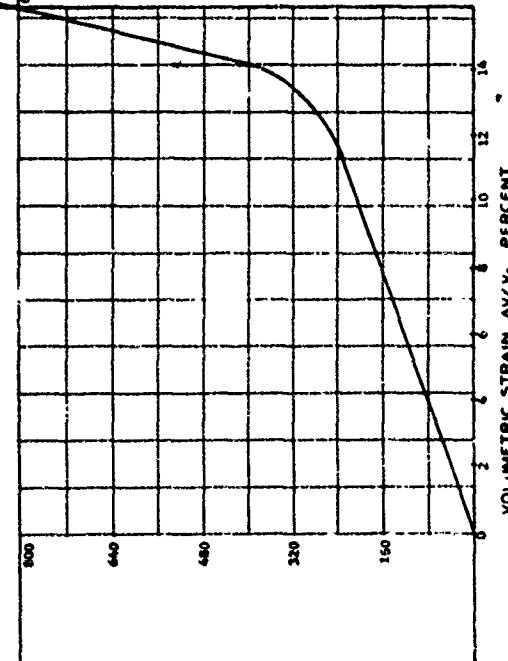
| | |
|---------------------------------|----------------|
| PROJECT Ge-Tech 3-602: | |
| Contract No. 20CA19-67-C-0051 | |
| | |
| AREA | SAMPLE NO. 214 |
| BORING NO. | DATE |
| DEPTH | |
| EL. | |
| LL | PL 17 |
| | P1 19 |
| DESCRIPTION Weathered Mill Clay | |
| | |
| | |
| | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.82 | % |
| VOID RATIO | e_0 | 0.79 | |
| SATURATION | S_o | 40.29 | % |
| DR. DENSITY | γ_d | 94.02 | pcf |
| WET DENSITY | γ_w | 105.13 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.60 | cm |



TRIAXIAL SHEAR PHASE



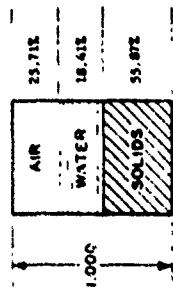
HYDROSTATIC PRESSURE, P, PSI

189

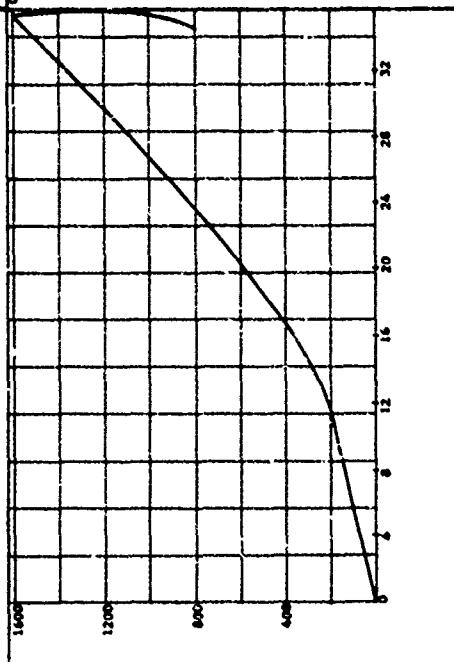
| | | | |
|--------------|-------------------|-----|----|
| PROJECT | S. Tech B-622: | | |
| Contract No. | DMC159-67-C-0051: | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | 213 | |
| DEPTH | DATE | | |
| EL. | | | |
| LL | PL | 17 | P1 |
| | | | 19 |
| | | | |
| | | | |
| | | | |
| | | | |

DESCRIPTION: Matching Mill Clay

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.20 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S _o | 41.72 | % |
| DRY DENSITY | γ_d | 94.14 | pcf |
| WET DENSITY | γ | 105.82 | pcf |
| SPECIFIC GRAVITY | G _s | 2.10 | |
| SPECIMEN DIAMETER | D ₀ | 3.69 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |

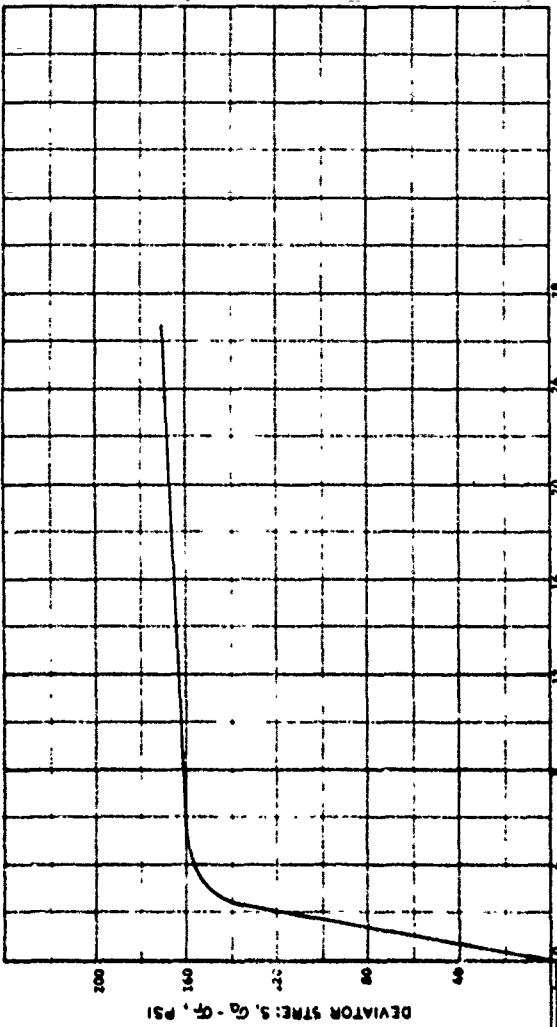


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

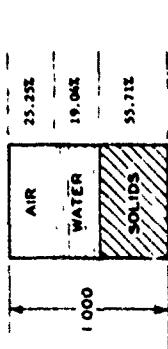
190



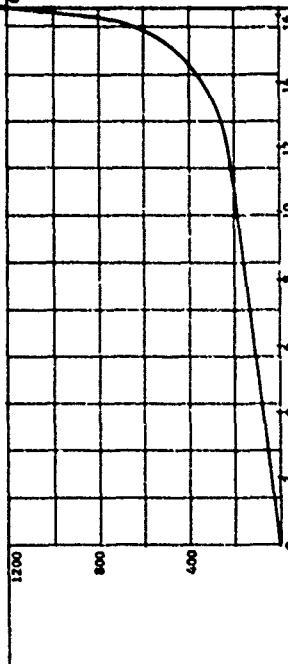
TRIAXIAL SHEAR PHASE

| | |
|---|-------------------------------------|
| PROJECT | Co. Tech. B-602 |
| | Contract No. DCA39-67-C-0051 |
| AREA | SAMPLE NO. 255 |
| BORING NO. | DATE |
| DEPTH | EL. |
| EL. | PL |
| LL | P _L 17 P _I 19 |
| DESCRIPTION: <u>Machias Hill clay</u> | |
| Triaxial Test, Compacted to 1600 psi, Unloaded to 800 psi | |
| Strain at 800 psi | |

| | | |
|-------------------|----------------|---------|
| WATER CONTENT | W | 12.56 |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S _o | 42.9% |
| DRY DENSITY | γ_d | 99.85 |
| WET DENSITY | γ_w | 105.73 |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| INITIAL HEIGHT | H ₀ | 7.58 CM |

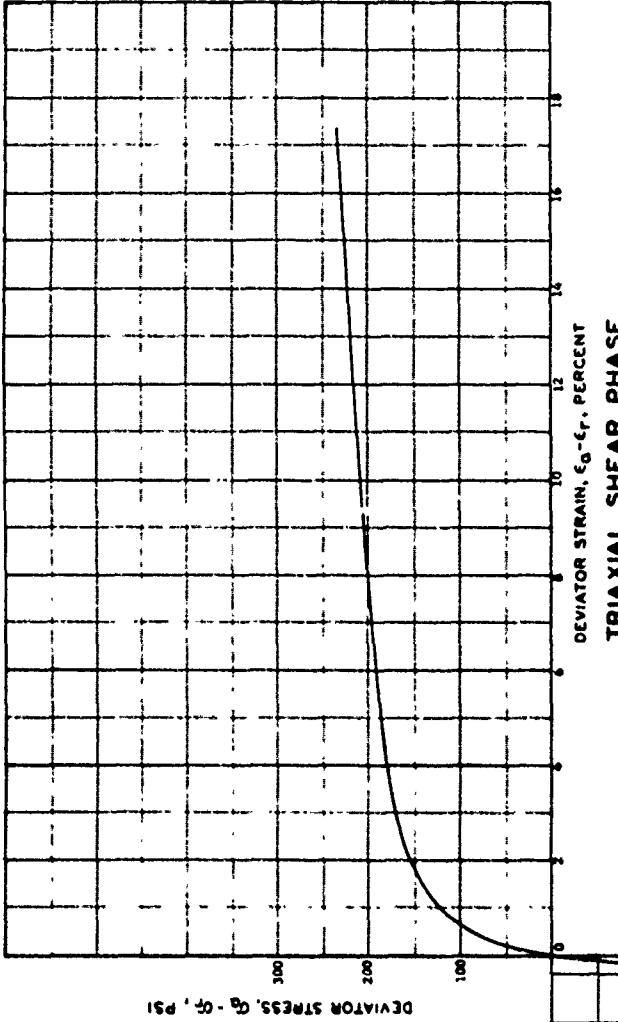


HYDROSTATIC COMPRESSION PHASE



M. HYDROSTATIC PRESSURE, P, PSI

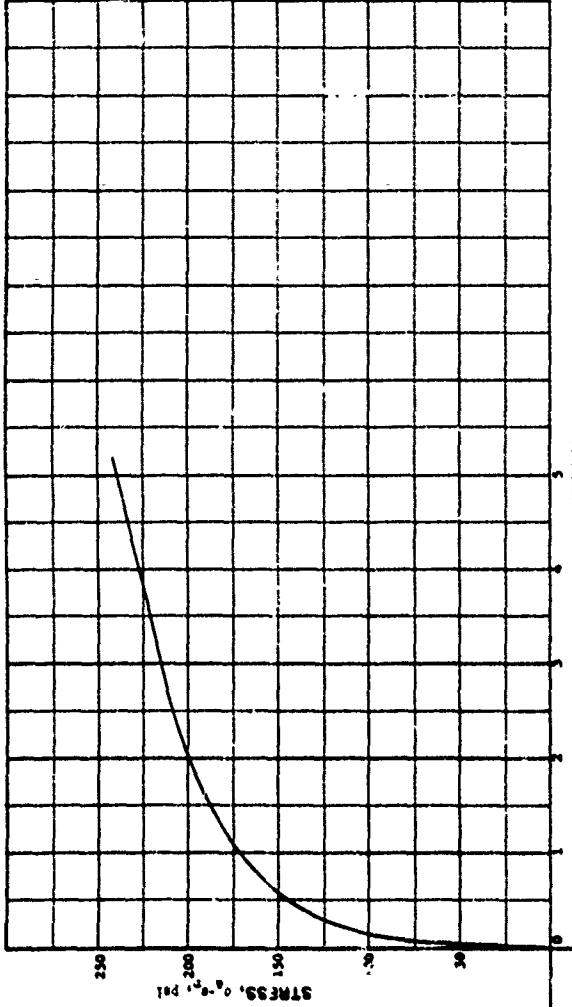
191



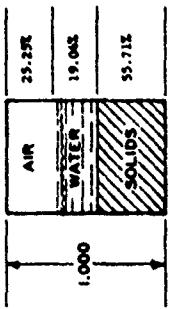
DEVIATOR STRAIN, $\epsilon_d - \epsilon_r$, PERCENT
TRIAXIAL SHEAR PHASE

| | |
|-------------|---------------------------|
| PROJECT | Geotech 8-602: |
| | Contract No. 10437-C-0051 |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL. | |
| LL | 36 |
| PL | 17 |
| P1 | 19 |
| | |
| DESCRIPTION | Wachting Hill Clay |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W% | 12.65 | % |
| VOID RATIO | e _o | 0.79 | |
| SATURATION | S _w | 42.99 | % |
| DRY DENSITY | γ _d | 99.85 | pcf |
| WET DENSITY | γ _w | 105.73 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _s | 3.50 | cm |
| SPECIMEN HEIGHT | H _s | 7.58 | cm |



HYDROSTATIC COMPRESSION PHASE



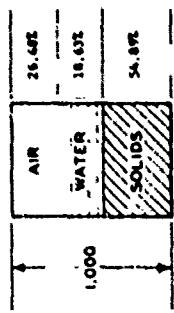
HYDROSTATIC PRESSURE, P, PSI

192

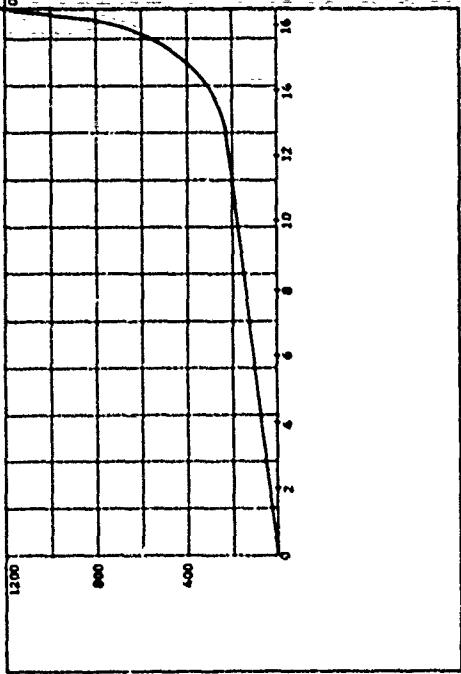
| | |
|--------------------------------|----------------|
| PROJECT | Geotech B-602: |
| Contract No. DACA39-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 200 |
| DEPTH | DATE |
| EL. | LL PL L7 P1 19 |
| DESCRIPTION Muckling Mill Clay | |

VOLUMETRIC STRAIN, ΔV/V, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.57 % |
| VOID RATIO | e ₀ | 0.82 |
| SATURATION | S ₀ | 41.30 % |
| DRY DENSITY | - | 76.48 PCF |
| WET DENSITY | - | 106.11 PCF |
| SPECIFIC GRAVITY | G ₀ | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.60 CM |

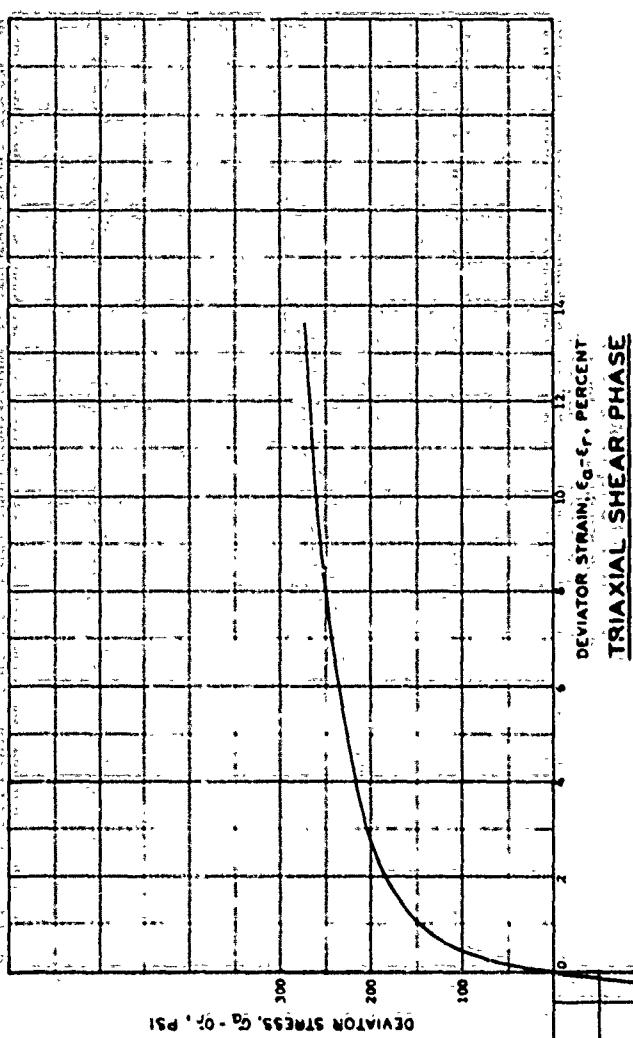


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

193

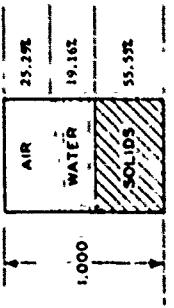


TRIAXIAL SHEAR PHASE

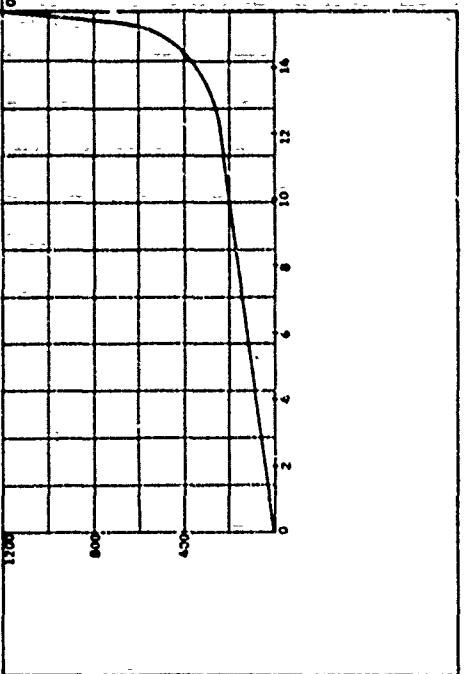
| | |
|-------------------------------|---------------|
| PROJECT | Geotech 3-602 |
| Contract No. DIA39-67-C-0051 | |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL. | |
| LL | 36. |
| PL | 17. |
| DATE | 01-19- |
| DESCRIPTION: Wet sand mixture | |

VOLMETRIC STRAIN, AV/V₀, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.77 | % |
| VOID RATIO | e _o | 0.80 | |
| SATURATION | S _o | 43.10 | % |
| DRY DENSITY | γ_d | 93.59 | pcf |
| WET DENSITY | γ_w | 105.55 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _o | 3.69 | cm |
| SPECIMEN HEIGHT | H _o | 7.62 | cm |

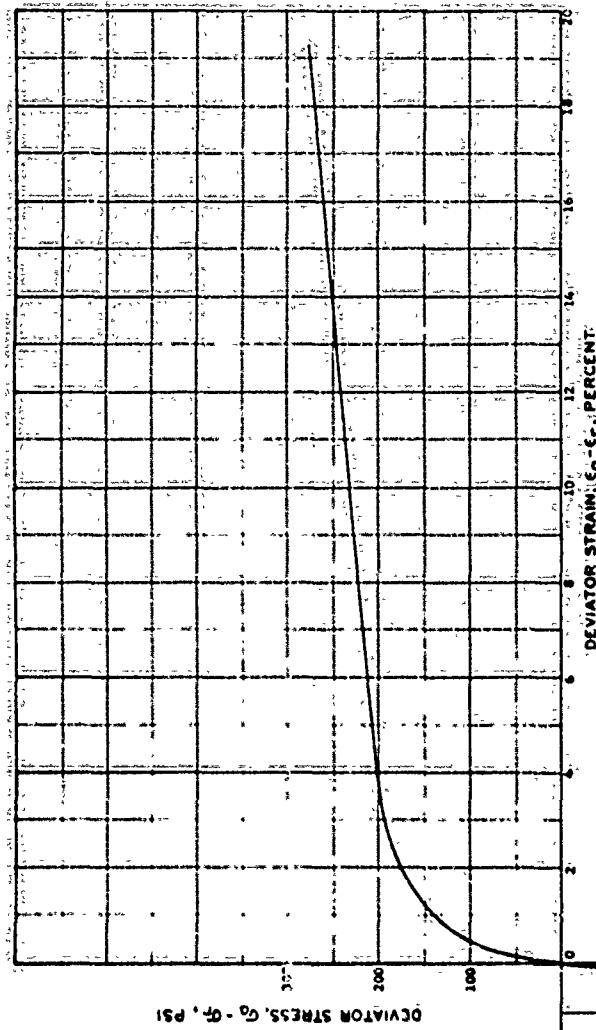


HYDROSTATIC COMPRESSION PHASE

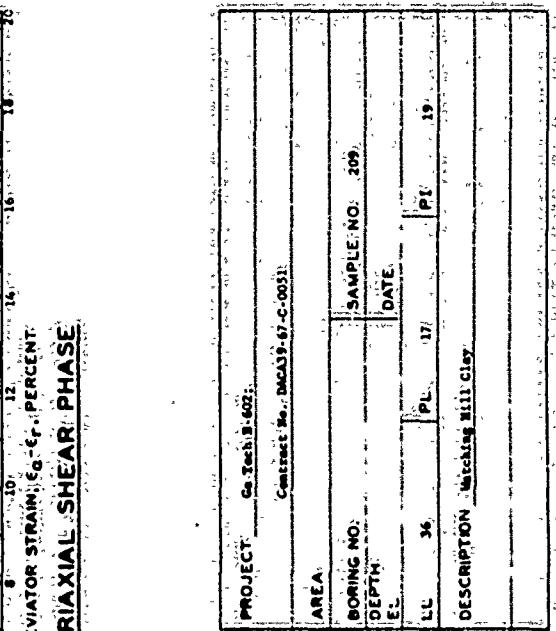


HYDROSTATIC PRESSURE, P, PSI

194

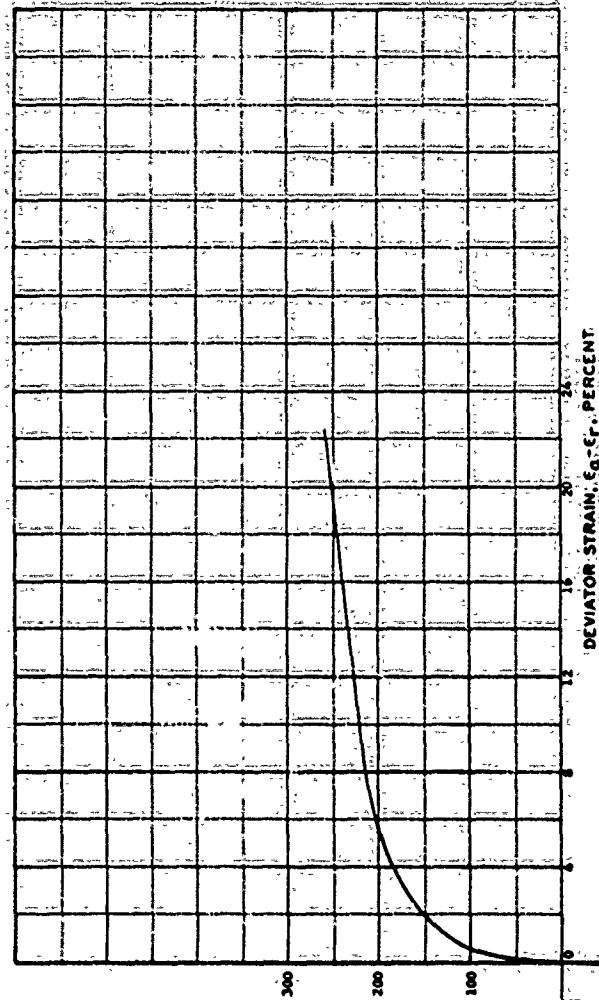


TRIAXIAL SHEAR PHASE

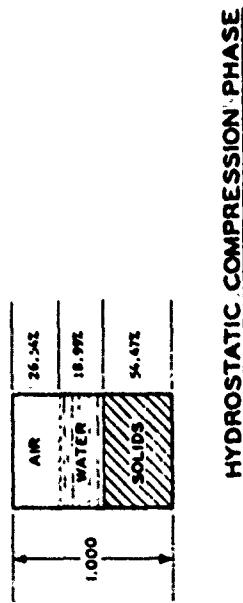


| | | | |
|------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.91 | % |
| VOID RATIO | e ₀ | 0.64 | |
| SATURATION | S _o | 41.72 | % |
| DRY DENSITY | D _d | 91.77 | pcf |
| WET DENSITY | D _w | 103.62 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| LEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.60 | cm |

DEVIATOR STRESS, Q₆-Q₄, PSI



DEVIATOR STRAIN, Q₆-Q₄, PERCENT
TRIAXIAL SHEAR PHASE



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

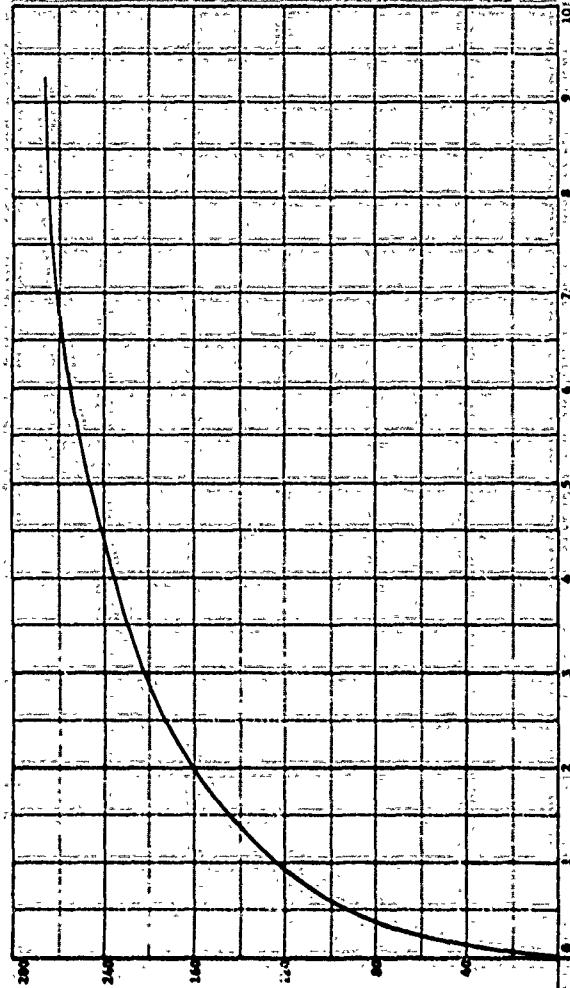
191

| | |
|--------------------------------|------------------|
| PROJECT | Co. Test #1001 |
| Contract No. | DMG#32-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 206 |
| DEPTH | DATE |
| EL. | PL. 17 |
| L.L. | Pt. 7.19 |
| DESCRIPTION: Machine Mill Clay | |

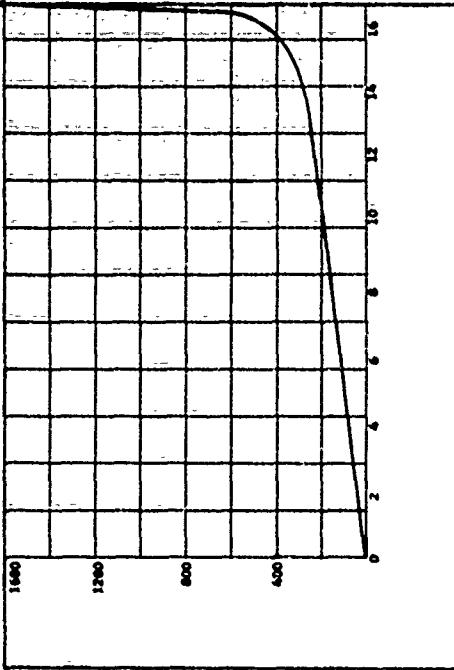
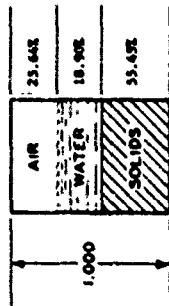
VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.63 | % |
| VOID RATIO | e ₀ | 0.90 | |
| SATURATION | S _s | 42.43 | % |
| DRY DENSITY | D _d | 93.42 | pcf |
| WET DENSITY | γ | 105.22 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _s | 2.49 | cm |
| SPECIMEN HEIGHT | H _s | 7.63 | cm |

DEVIATOR STRESS, σ_d = σ_f, psi



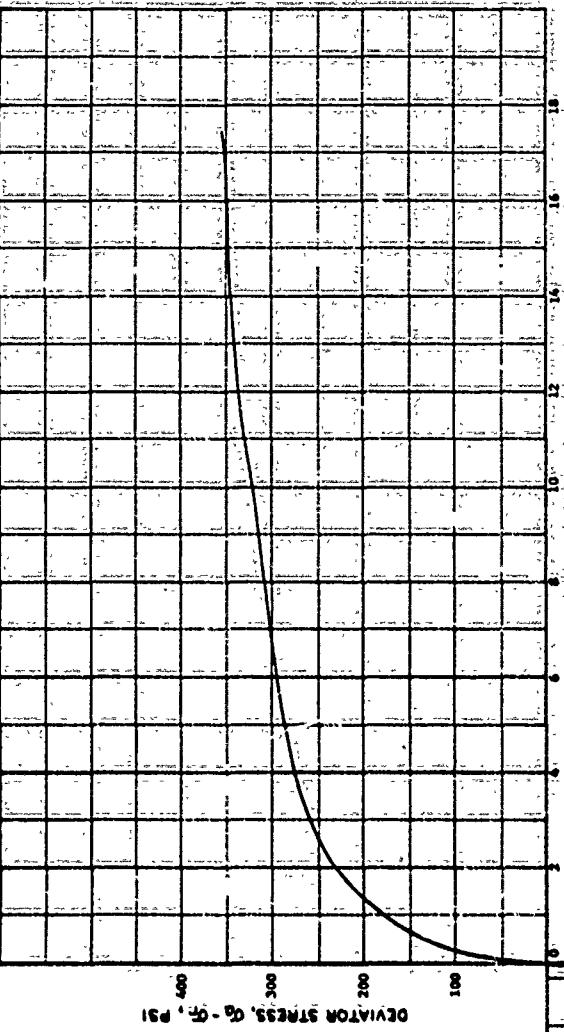
HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, psi

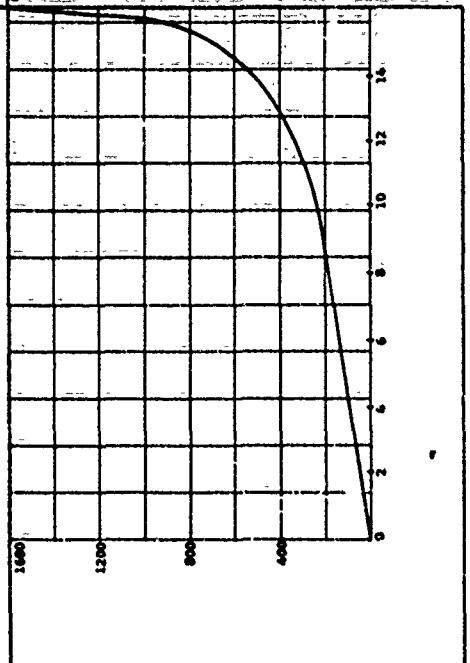
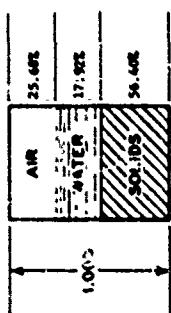
| | | |
|--------------------------------------|-----------------|-------|
| PROJECT: Serial Number of Test: 3-02 | | |
| Contract No.: MCA32-67-C-0031 | | |
| AREA: | SAMPLE NO.: 249 | DATE: |
| | | |
| DEPTH EL. | PL. | PI: |
| L.L. | 17 | 19 |
| DESCRIPTION: Machine Hill Clev. | | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.77 | % |
| VOID RATIO | e ₀ | 0.77 | |
| SATURATION | S _o | 41.11 | % |
| DRY DENSITY | D _d | 95.00 | PCF |
| WET DENSITY | D _w | 106.21 | PCF |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _o | 3.47 | CM |
| SPECIMEN HEIGHT | H _o | 7.63 | CM |



TRIAXIAL SHEAR PHASE

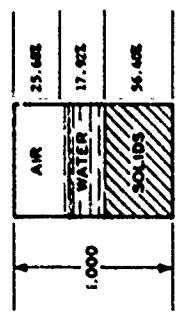
HYDROSTATIC COMPRESSION PHASE



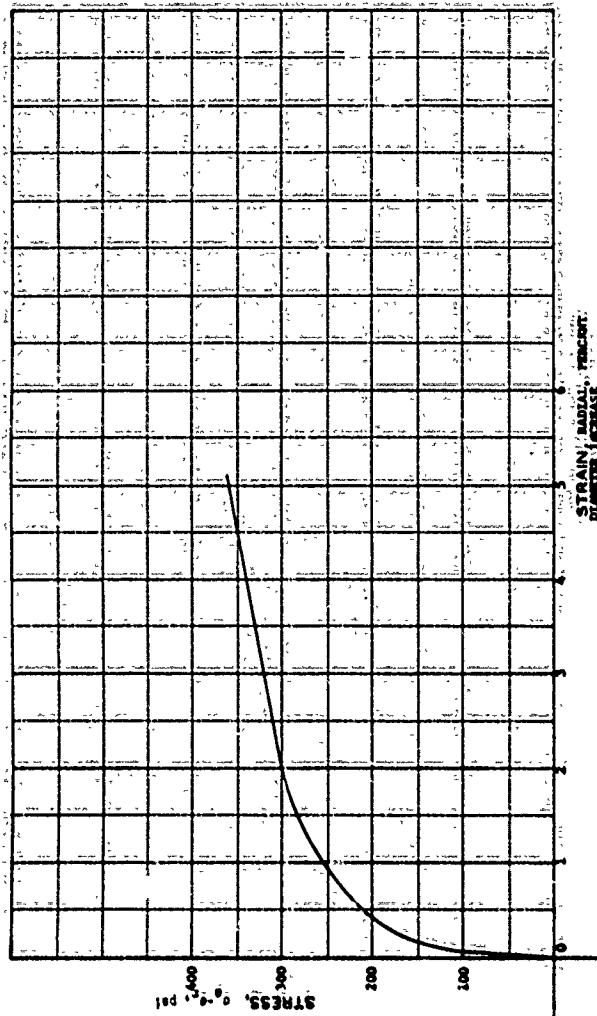
| | |
|------------------------------|-----------------|
| PROJECT | Co. Sub-B-002 |
| Contract No. BMAS9-67-C-C-41 | |
| AREA | |
| BORING NO. | SAMPLE NO. 2501 |
| DEPTH EL. | DATE |
| ft. | PL |
| 36 | 17 |
| | 19 |

DESCRIPTION: Washed Manganese Clay

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.77 | % |
| VOID RATIO | e_0 | 0.77 | |
| SATURATION | S_0 | 41.11 | % |
| DRY DENSITY | γ_d | 95.00 | pcf |
| WET DENSITY | γ | 106.21 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_0 | 3.67 | cm |
| SPECIMEN HEIGHT | H_0 | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE



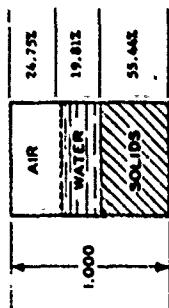
HYDROSTATIC PRESSURE, P, PSI

198

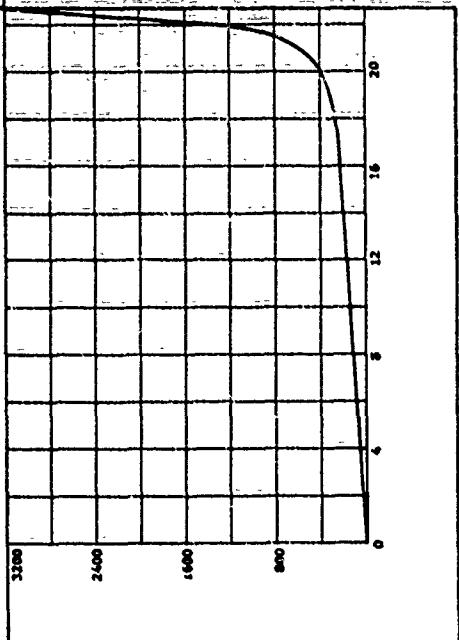
| | | | |
|--------------|----------------------|------------|-----|
| PROJECT | Geotech 8-602 | SAMPLE NO. | 250 |
| Contract No. | DCAS3-67-C-0031 | DATE | |
| AREA | | | |
| BORING NO. | | | |
| DEPTH E.L. | | | |
| LL | 36 | PL | 17 |
| | | | PSI |
| | | | 19 |
| DESCRIPTION | Weathering Mill Clay | | |

VOLUME STRAIN, $\Delta V/V_0$, PERCENT

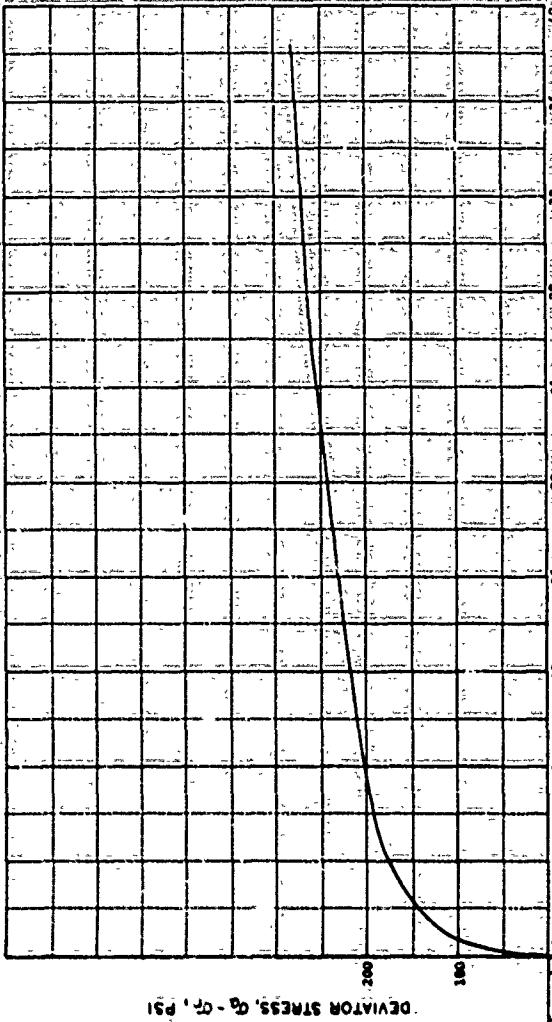
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | w | 13.26 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S _s | 44.47 | % |
| DRY DENSITY | γ _d | 93.40 | pcf |
| WET DENSITY | γ _w | 105.76 | pcf |
| SPECIFIC GRAVITY | G _s | 2.72 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.60 | cm |



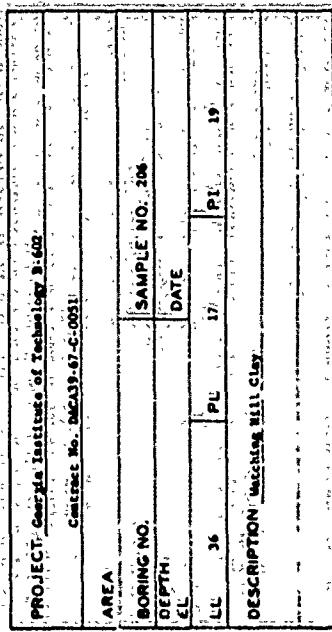
HYDROSTATIC COMPRESSION PHASE



199

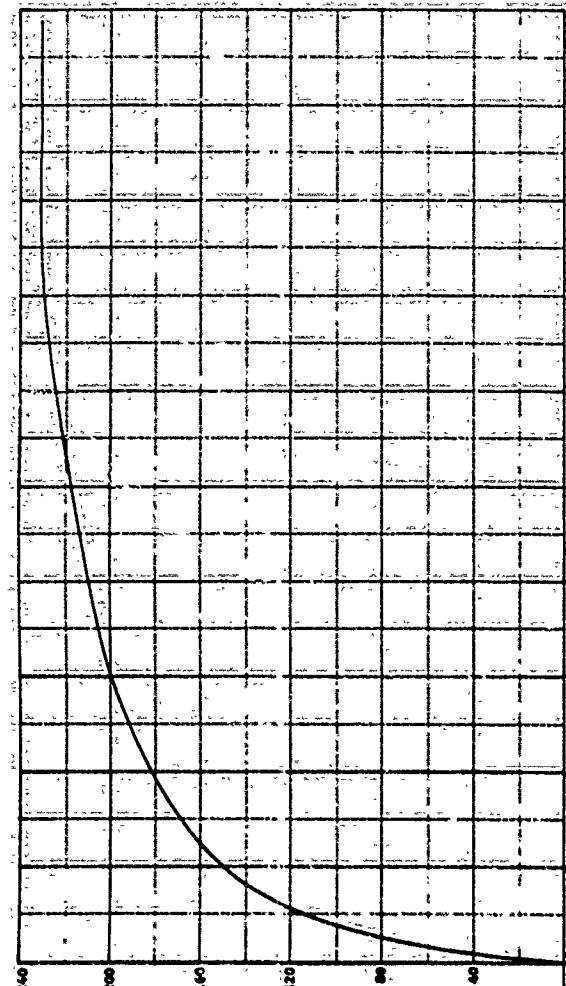


TRIAXIAL SHEAR PHASE

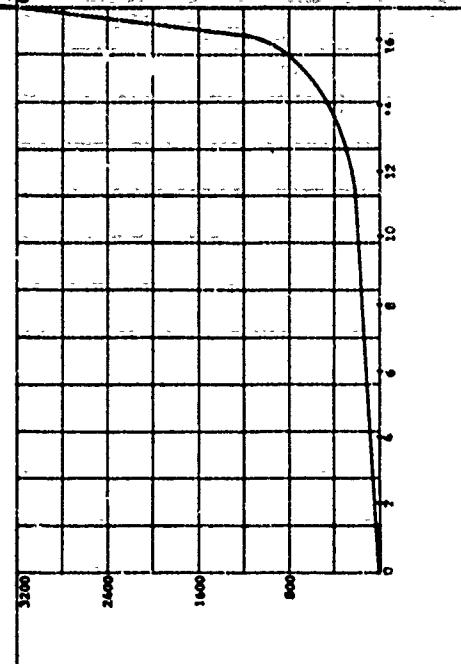


| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.57 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S _s | 42.36 | % |
| DRY DENSITY | D _d | 91.76 | pcf |
| WET DENSITY | D _w | 105.55 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |

DEVIATOR STRESS, Q_d - Q_p, PSI



HYDROSTATIC COMPRESSION PHASE

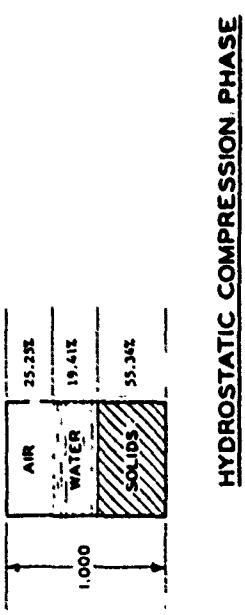


HYDROSTATIC PRESSURE, P, PSI

200

| | | | |
|---------------------------------|--------------|------------|----------|
| PROJECT | Co-Tech-3-82 | SAMPLE NO. | 251 |
| Contract No. DIA039-97-C-0031 | | DATE | 10/17/97 |
| AREA | BORING NO. | EL. | LL. |
| | | 117 | 197 |
| DESCRIPTION: Muckling Hill Clay | | | |

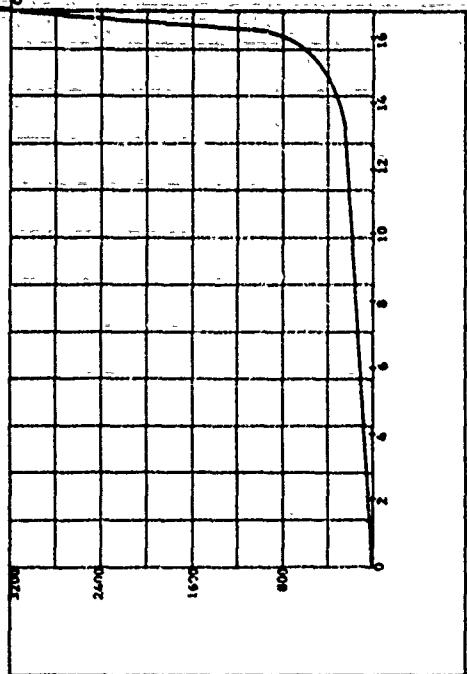
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.99 | % |
| VOID RATIO | e ₀ | 0.81 | |
| SATURATION | S _o | 43.44 | % |
| DRY DENSITY | γ_d | 93.23 | pcf |
| WET DENSITY | γ_w | 105.3* | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |



HYDROSTATIC PRESSURE, P, PSI

201

TRIAXIAL SHEAR PHASE

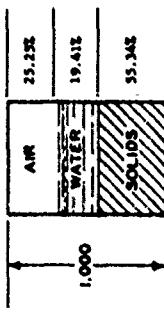


VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

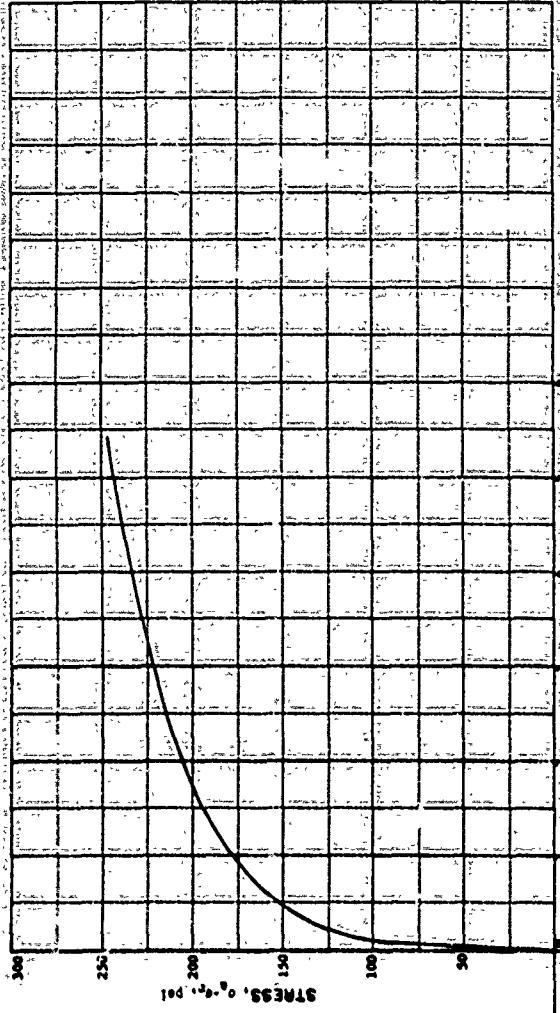
| | |
|------------|-------------------------------|
| PROJECT | CA 700 3-502 |
| AREA | Contract No. DIA031-87-C-0031 |
| BORING NO. | SAMPLE NO. 253 |
| DEPTH | DATE |
| EL. | LL. |
| PL. | PL. |
| 17 | 19 |

DESCRIPTION: Wetting/Mixing

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.99 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S _o | 43.46 % |
| DRY DENSITY | γ_d | 98.23pcf |
| WET DENSITY | γ_w | 105.35pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |



HYDROSTATIC COMPRESSION PHASE



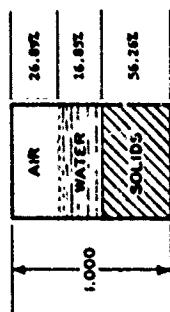
HYDROSTATIC PRESSURE, P, PSI

202

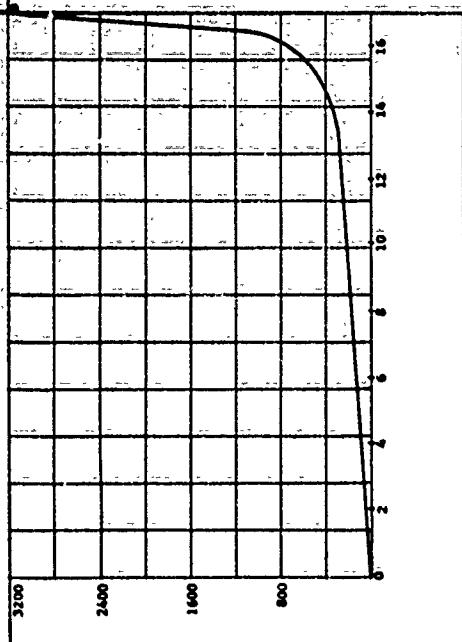
| | | | |
|----------------------------------|----------------------------------|-----|-----|
| PROJECT: | Co. Tech B-4021 | | |
| | (Contract No.: MACA31-67-C-0031) | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 233 | | |
| DEPTH EL. | DATE | | |
| LL. | PL. | PT. | SP. |
| DESCRIPTION: Bleeding Silty Clay | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

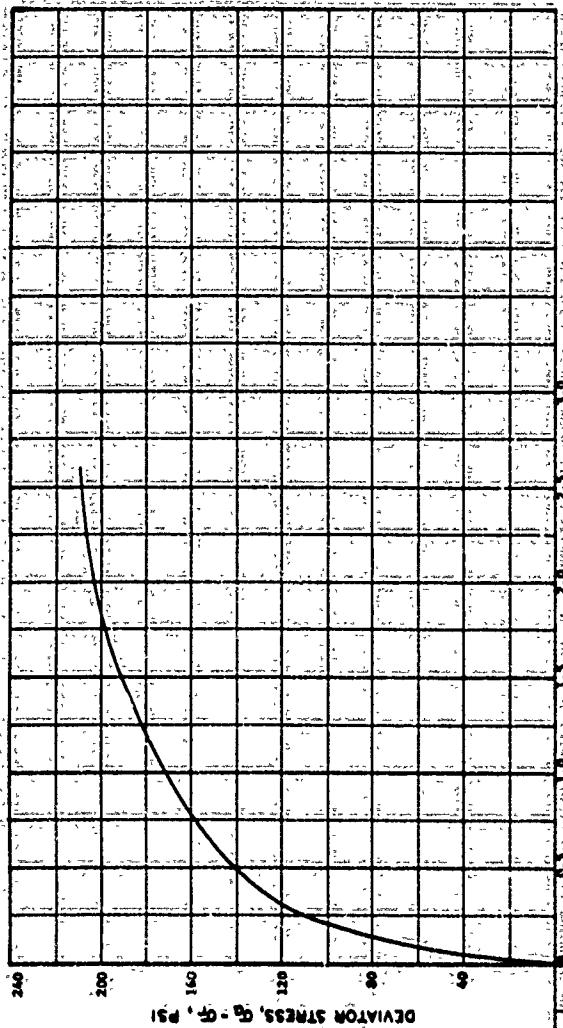
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.09 | % |
| VOID RATIO | e ₀ | 0.78 | |
| SATURATION | S _o | 36.52 | % |
| DRY DENSITY | γ _d | 94.79 | pcf |
| WET DENSITY | γ _w | 105.31 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE



VOLUMETRIC STRAIN, AV/V₀, PERCENT

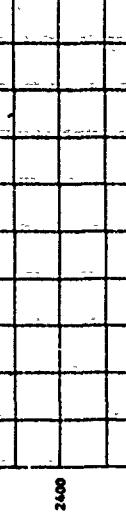
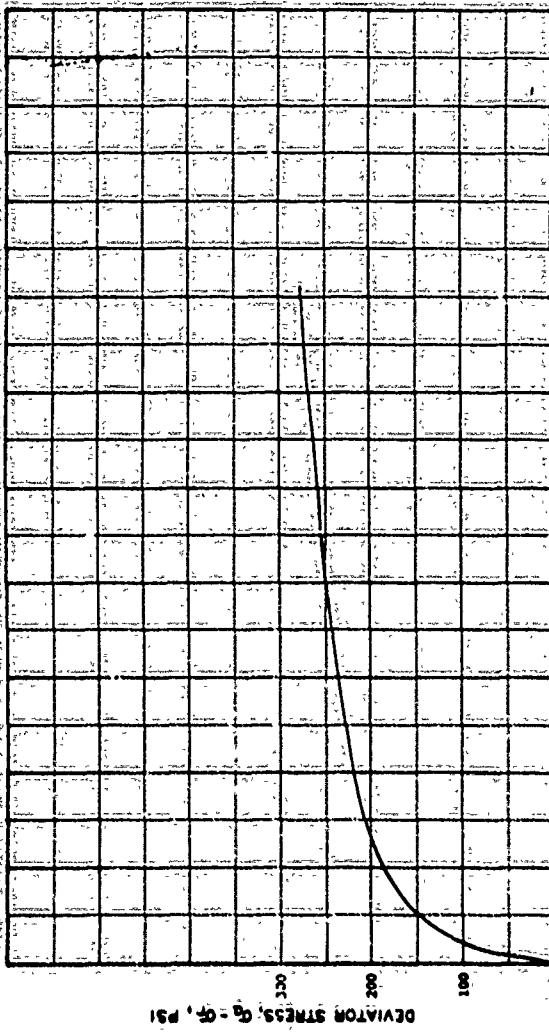


1.5
1.0
0.5
0
2.0
1.5
1.0
0.5
0
DEVIATOR STRAIN, E_g - E_f, PERCENT
TRIAXIAL SHEAR PHASE

| PROJECT | Geotech 2-402 |
|--------------|---------------------|
| Contract No. | MCASS-07-C-0051 |
| AREA | |
| BORING NO. | |
| DEPTH, EL. | |
| LL | |
| PL | |
| SAMPLE NO. | 268 |
| DATE | 19 |
| DESCRIPTION | Weathered Mill Cray |

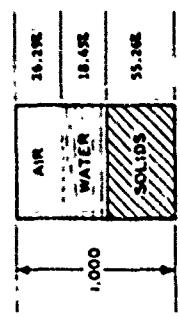
HYDROSTATIC PRESSURE, P, PSI

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | w | 13.22 | % |
| VOID RATIO | e_0 | 0.81 | |
| SATURATION | S_g | 43.66 | % |
| DRY DENSITY - | γ_d | 92.89 | pcf |
| WET DENSITY - | γ_w | 105.16 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_0 | 3.49 | cm |
| SPECIMEN HEIGHT | H_0 | 7.63 | cm |

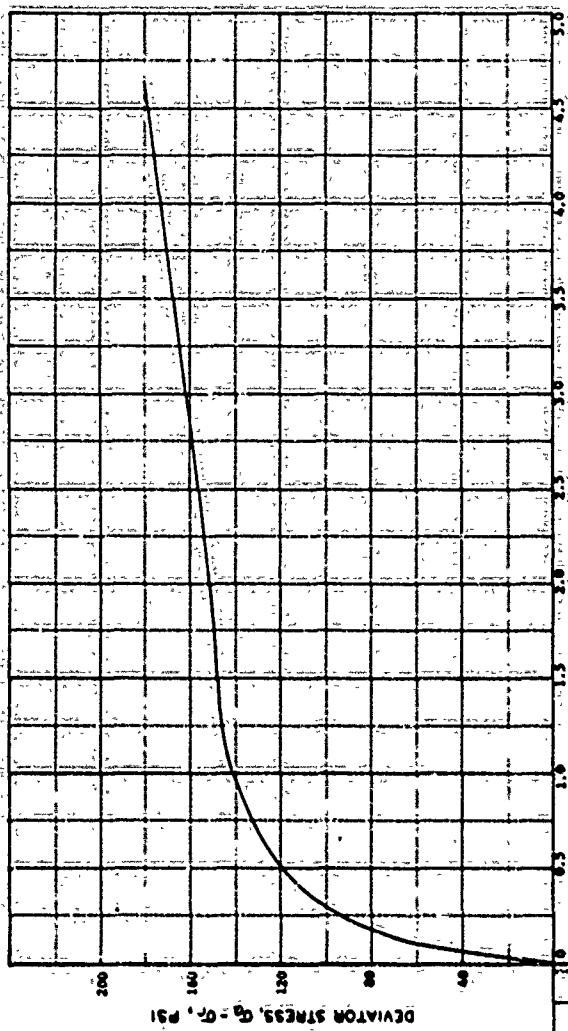
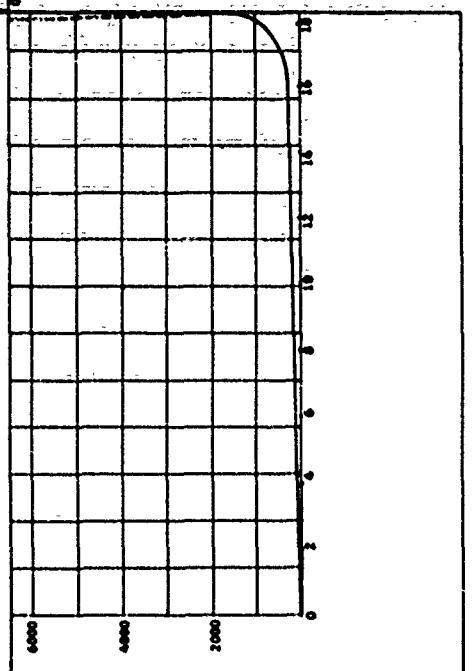


| | | | |
|---|-----------------|------------|-----|
| PROJECT | Geotech B-602 | SAMPLE NO. | 341 |
| Corehole No. | BACAB-97-C-0031 | | |
| AREA | | DATE | |
| BORING NO. | | EL. | |
| LL | 36 | PL | 17 |
| | | PL | 19 |
| DESCRIPTION: <u>Soil sample, silty clay</u> | | | |

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.37 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S _o | 61.25 % |
| DRY DENSITY | - | 92.11 PCF |
| WET DENSITY | - | 106.62 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |



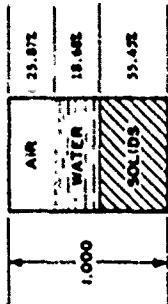
HYDROSTATIC COMPRESSION PHASE



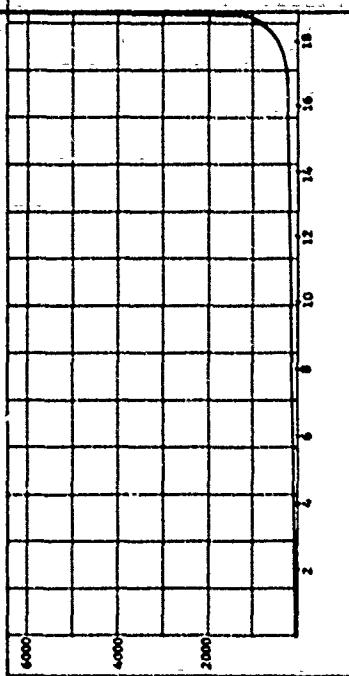
TRIAXIAL SHEAR PHASE

| | |
|---------------|------------------------------|
| PROJECT | Site 3-02 |
| BOREHOLE NO. | BC-32-07-C-0051 |
| AREA | — |
| BORING NO. | — |
| DEPTH | — |
| EL. | — |
| LL | 36 |
| PL | 17 |
| PT | 19 |
| SAMPLE NO. | 326 |
| DATE | — |
| DESCRIPTION | Mechanistic Soil Clay |
| Specific Test | — |
| Testers | Leontine, Francisco, Edgardo |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.48 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S ₀ | 41.93 | % |
| DRY DENSITY | γ_d | 53.62 | pcf |
| WET DENSITY | γ | 105.08 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 5.69 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |

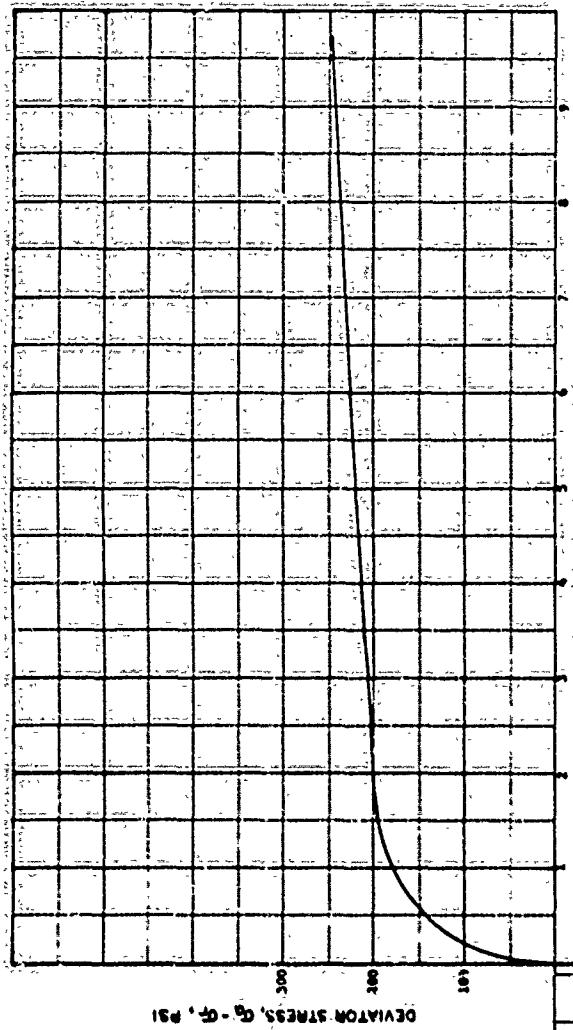


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

206



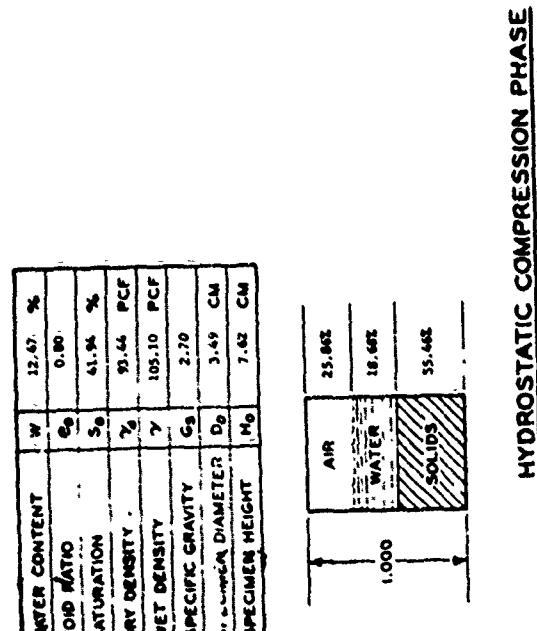
DEVIATOR STRAIN, E₄₅, PERCENT
TRIAXIAL SHEAR PHASE

| | |
|--------------------------------|-----------------|
| PROJECT: Co. Tech. S-602; | SAMPLE NO.: 332 |
| Contract No.: DACA19-67-C-0051 | |
| AREA: | |
| BORING NO.: | DATE: |
| DEPTH EL.: | |
| ILL.: | PL.: |
| 10 | 17 |
| 11 | 18 |

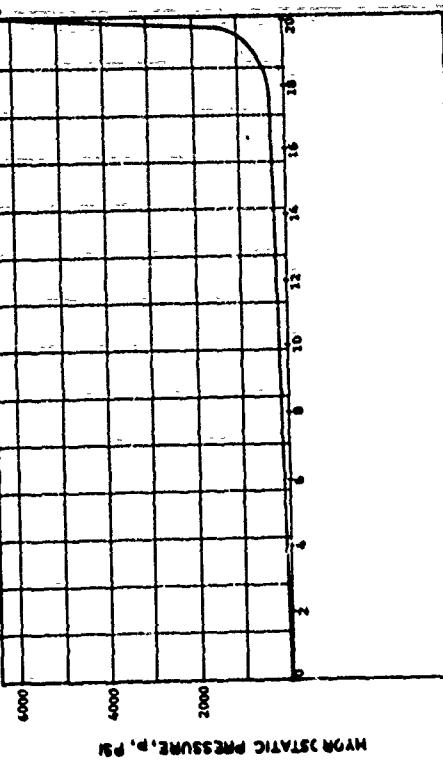
DESCRIPTION: Weathered M11 clay.

| | | |
|------------------|----------------|------------|
| WATER CONTENT | W | 12.67 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S _o | 61.36 % |
| DRY DENSITY | γ_d | 93.64 PCF |
| WET DENSITY | γ_w | 105.10 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| COLLUMN DIAMETER | D _c | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |

DEVIATOR STRESS, Q_d - Q_c, PSI



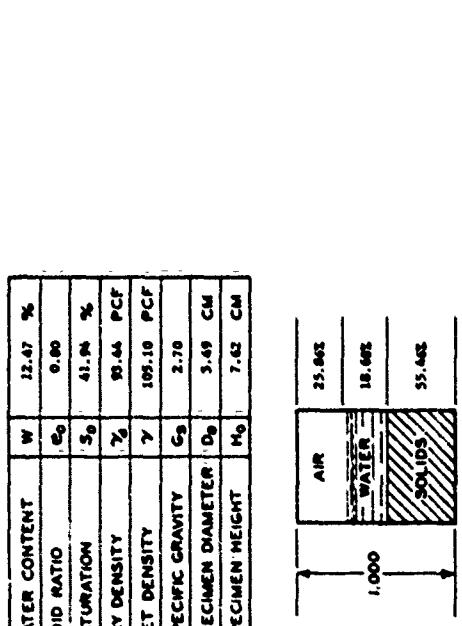
HYDROSTATIC COMPRESSION PHASE



VOLUMETRIC STRAIN, AV/V₀, PERCENT

| | |
|--------------------------------|------------------|
| PROJECT | Ge 161-2-402 |
| CONTRACT NO. | DMA039-67-C-0051 |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL. | |
| LL | |
| PL | 137 |
| PT | 10 |
| DESCRIPTION: Machine Mill Clay | |

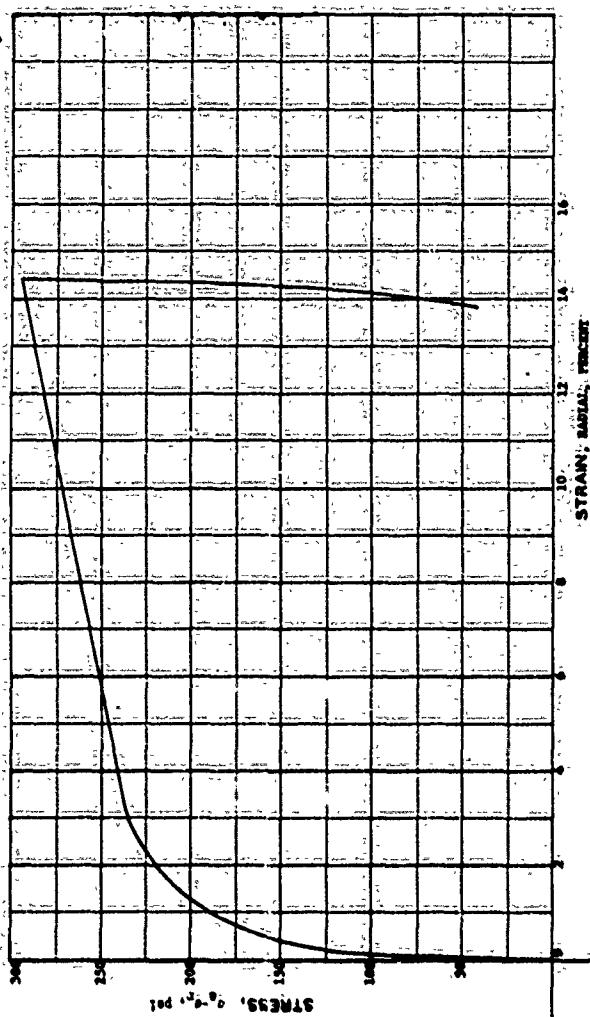
| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.47 % |
| VOID RATIO | e ₀ | 0.90 |
| SATURATION | S ₀ | 41.94 % |
| DRY DENSITY | γ_d | 93.44pcf |
| WET DENSITY | γ_w | 169.10pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.69 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

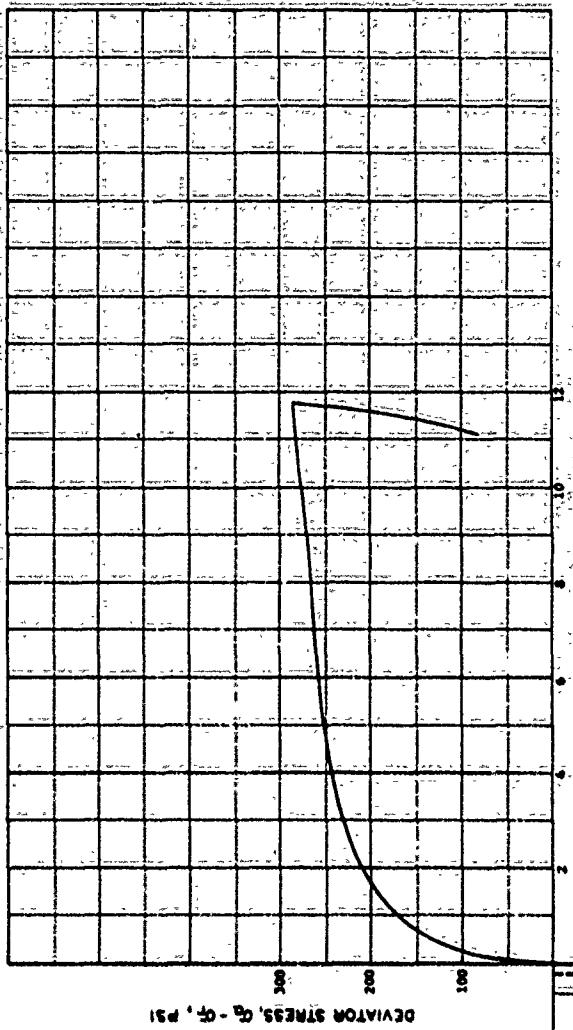
208



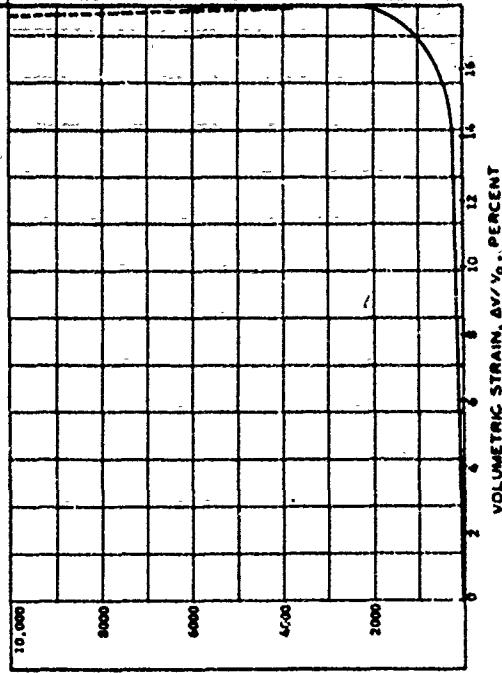
| | | | |
|--------------------------------|----------------|------------|-----|
| PROJECT | Co. Zeeb B-602 | SAMPLE NO. | 336 |
| Contract No. MACUS-67-0051 | | DATE | |
| AREA | | | |
| BORING NO. | | | |
| DEPTH E.L. | | | |
| LL | 36 | PL | 17 |
| | | PI | 19 |
| DESCRIPTION: Beachy Silty Clay | | | |

VOLMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.52 % |
| VOID RATIO | e ₀ | 0.61 |
| SATURATION | S _o | 41.90 % |
| DRY DENSITY | γ _d | 93.25pcf |
| WET DENSITY | γ _w | 106.92pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |



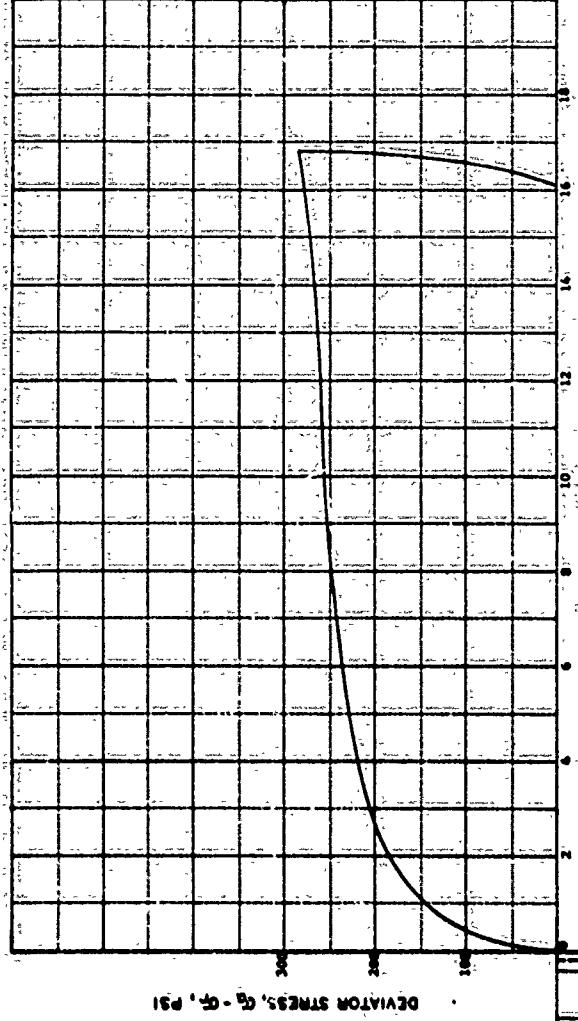
HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, psi

209

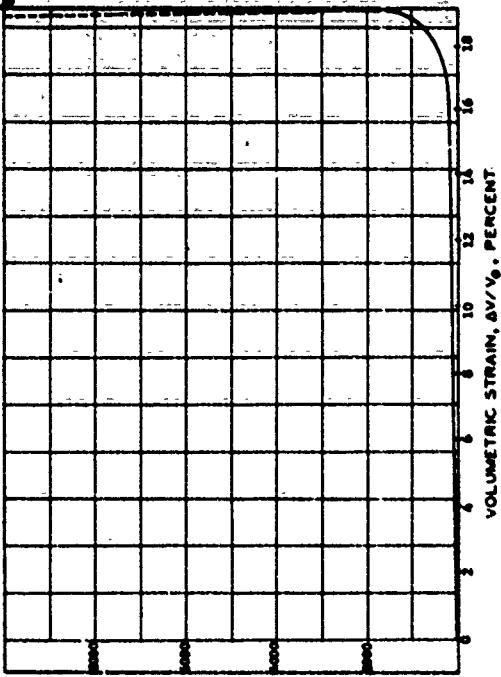
| | |
|--------------------------------|------------------|
| PROJECT | Co. Tech. & Geo. |
| Contract No. NCAS9-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 206 |
| DEPTH | DATE |
| EL. | |
| LL. | P1 |
| | 17 |
| | 19 |
| DESCRIPTION: Macaque Hill clay | |



TRIAXIAL SHEAR PHASE

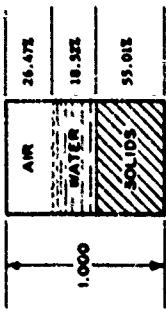
| | | | |
|--------------------------------|----------------|------------|-----|
| PROJECT | Ge Tech S-002: | SAMPLE NO. | 335 |
| Contract No. D-0039-07-C-0051: | | DATE | |
| AREA | | | |
| BORING NO. | | | |
| DEPTH EL. | | | |
| L.L. | 36 | P.L. | 19 |
| DESCRIPTION: MUSKEG TILL CLAY | | | |

HYDROSTATIC COMPRESSION PHASE

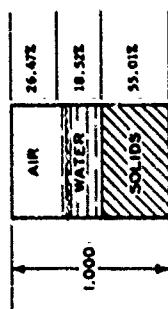


HYDROSTATIC PRESSURE, P, PSI

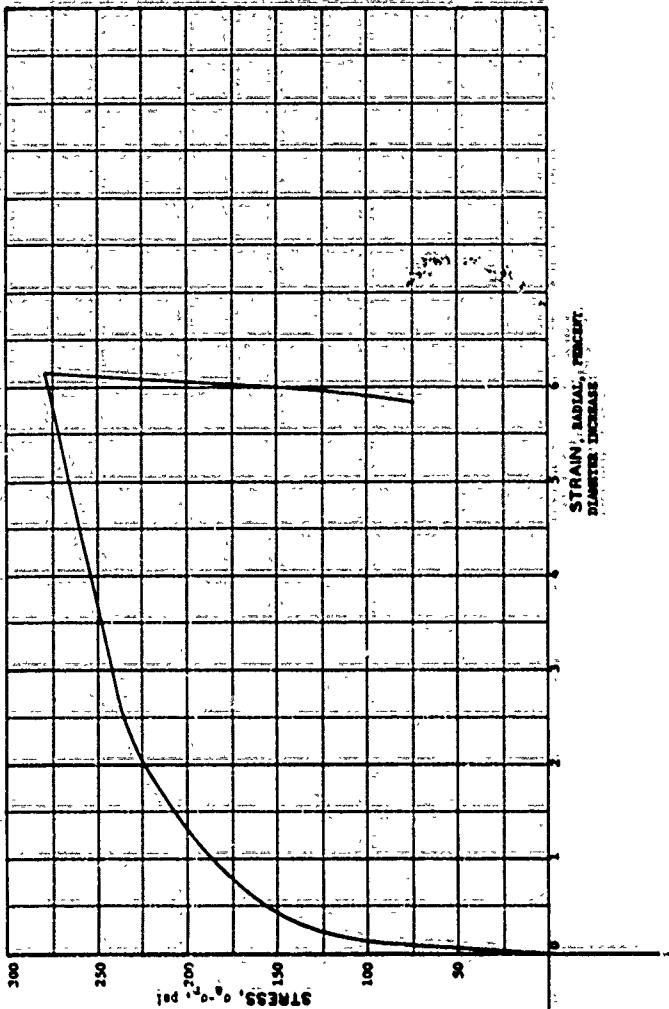
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.47 | % |
| VOID RATIO | e _o | 0.82 | |
| SATURATION | S _o | 43.17 | % |
| DRY DENSITY | D _d | 97.40 | PCF |
| WET DENSITY | D _w | 106.26 | PCF |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _s | 2.50 | CM |
| SPECIMEN HEIGHT | H _s | 7.42 | CM |



| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.47 | % |
| VOID RATIO | e ₀ | 0.82 | |
| SATURATION | S ₀ | 41.17 | % |
| DRY DENSITY | γ_d | 92.68 | pcf |
| WET DENSITY | γ' | 104.24 | pcf |
| SPECIFIC GRAVITY | G _s | 2.76 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

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| | |
|------------------------------|-------------------|
| PROJECT | Co. Tech 13-602: |
| Contract No. | MACA 39-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 333 |
| DEPTH | DATE |
| E.I. | |
| LL | PL |
| | 17 |
| | P1 |
| | 19 |
| DESCRIPTION: Wetting history | |

VOLMETRIC STRAIN, $\Delta V/V_0$, PERCENT

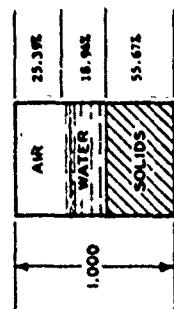
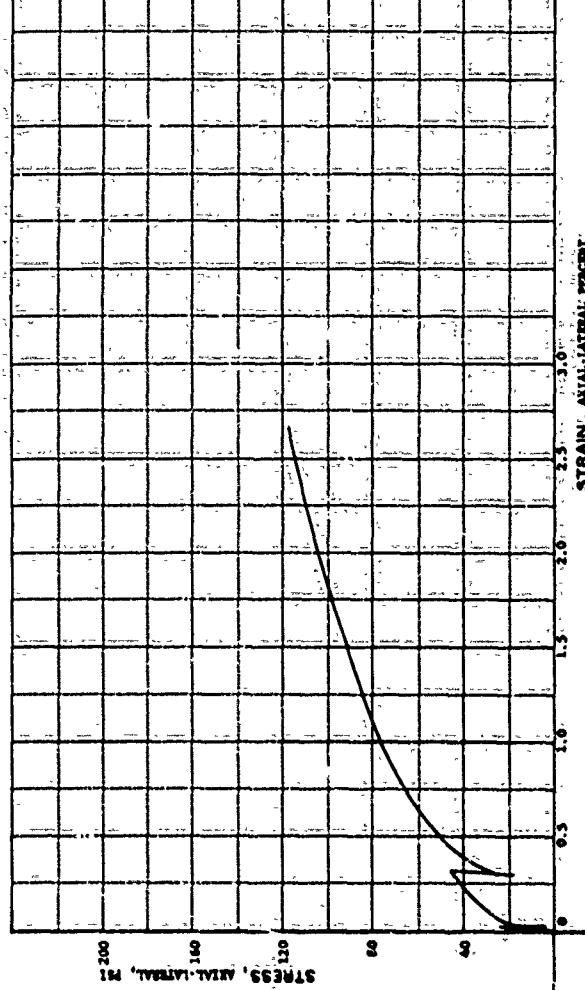
Group B

Triaxial Tests, Cyclic

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213

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.60 % |
| VOID RATIO | e _o | 0.80 |
| SATURATION | S _o | 42.73 % |
| DRY DENSITY | D _d | 95.79pcf |
| WET DENSITY | y | 105.61pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 2.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.60 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

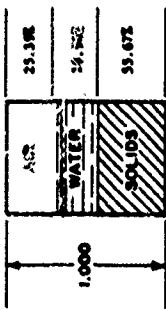
215

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| | |
|--|-----------------------|
| PROJECT: <u>Geotechnical Institute of Technology 3-602</u> | |
| Contract No. <u>NA-59-67-C-0051</u> | |
| AREA | |
| BORING NO. | SAMPLE NO. <u>319</u> |
| DEPTH (EL.) | DATE |
| LL. <u>36</u> | PL. <u>17</u> |
| | PT. <u>19</u> |
| DESCRIPTION: <u>Weathered M111 Clay</u> | |
| TESTS: <u>Cyclic @ 35% and 75%</u> | |
| Lateral Pressure, 100 psi | |

VOLUMETRIC STRAIN, AV/V₀, PERCENT

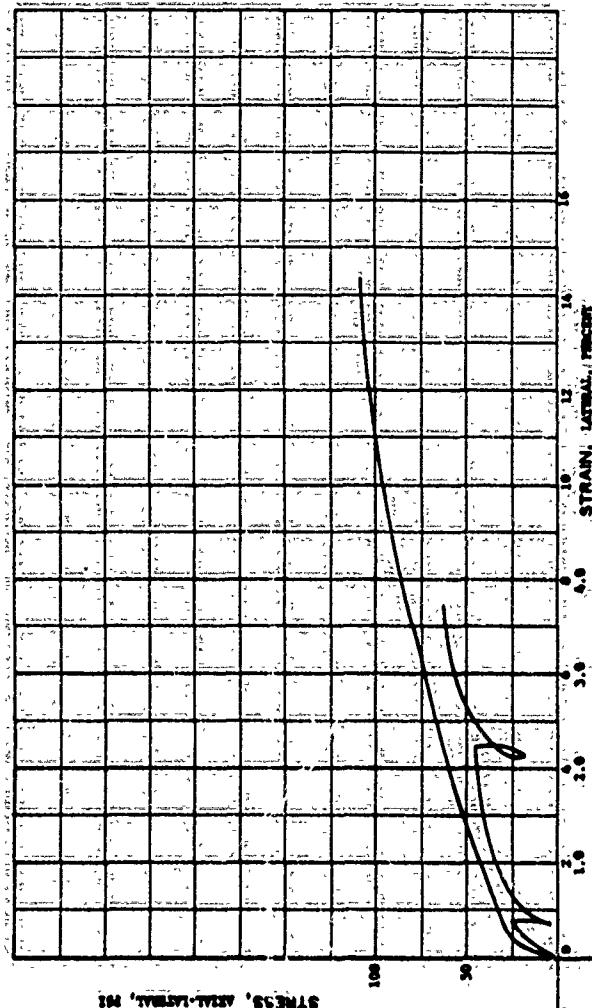
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 13.40 | % |
| VOID RATIO | e ₀ | 0.46 | |
| SATURATION | S ₀ | 43.73 | % |
| DRY DENSITY | γ_d | 99.79 | PCF |
| WET DENSITY | γ_w | 105.61 | PCF |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.69 | CM |
| SPECIMEN HEIGHT | H ₀ | 7.66 | CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

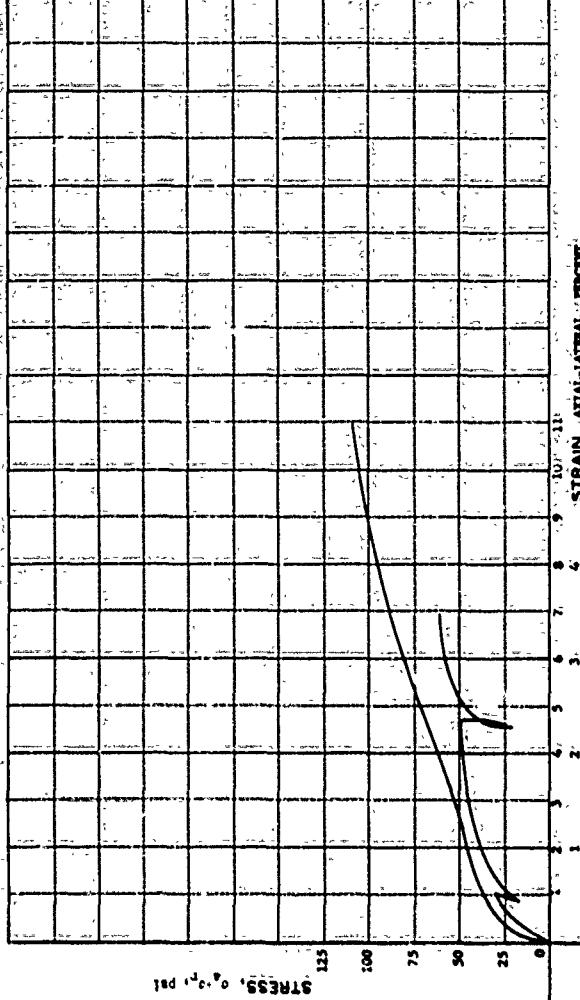
216



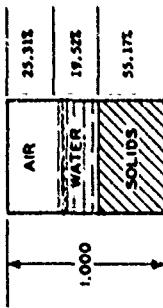
| | |
|---|----------------|
| PROJECT George Institute of Technology 3-02 | |
| Core No. M-2439-67-C-0091 | |
| AREA | SAMPLE NO. 319 |
| BORING NO. | DATE: |
| DEPTH | PL |
| EL. | 17 |
| LL | PI |
| DESCRIPTION: Saturated Siliciclastics | |
| TESTS: Cycle 0.35% and 75% | |
| Initial Pressure, 100 PSI | |

VOLMETRIC STRAIN, AV/V0, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 13.10 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S ₀ | 43.54 % |
| DRY DENSITY | γ_d | 92.95pcf |
| WET DENSITY | γ_w | 105.14pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE

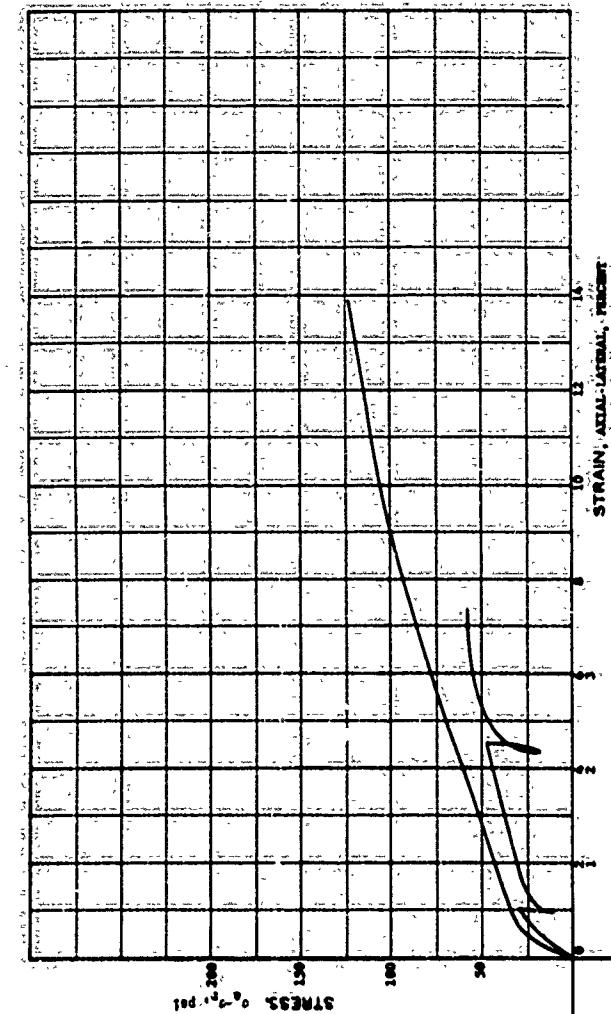


HYDROSTATIC PRESSURE, P, PSI

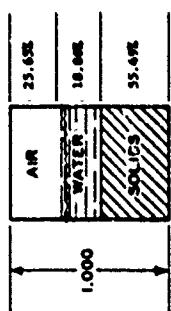
217

| | |
|--|-----------------------|
| PROJECT: <u>Geotechnical Institute of Technology - 402</u> | |
| Contract No.: <u>INDIA 3-67-C-0011</u> | |
| AREA: | |
| BORING NO. <u>347</u> | SAMPLE NO. <u>347</u> |
| DEPTH, <u>EL.</u> | DATE: <u>17/1/79</u> |
| LL. <u>36</u> | PL. <u>17</u> |
| DESCRIPTION: <u>Wetted Mill Clay</u> | <u>PI. 19</u> |
| <u>Triaxial-Cyclic Shear @ 35% and 75%</u> | |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT



| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.59 | % |
| VOID RATIO | e ₀ | 0.89 | |
| SATURATION | S _s | 42.34 | % |
| DRY DENSITY | D _d | 58.49 | pcf |
| WET DENSITY | Y | 105.26 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |



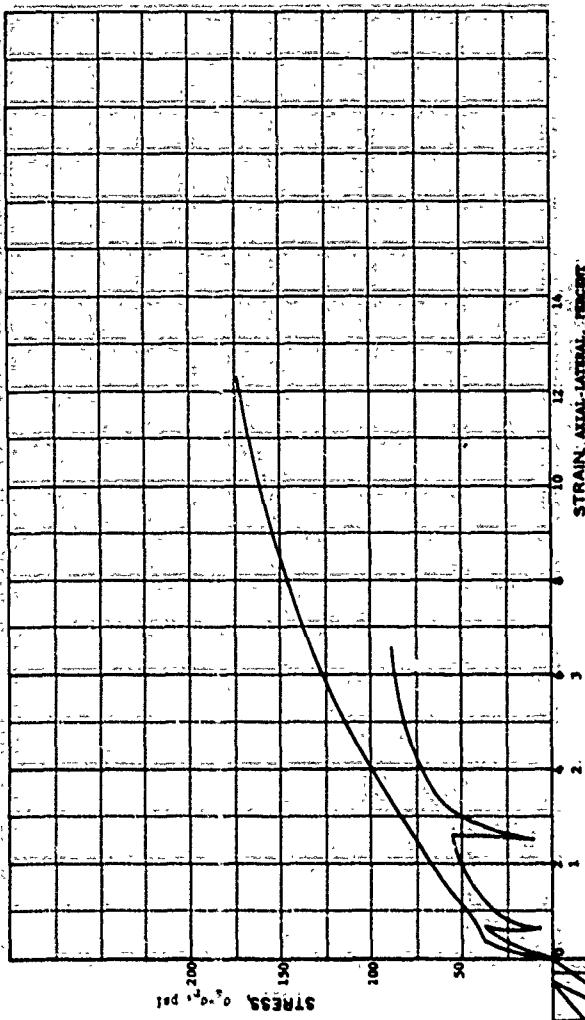
HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

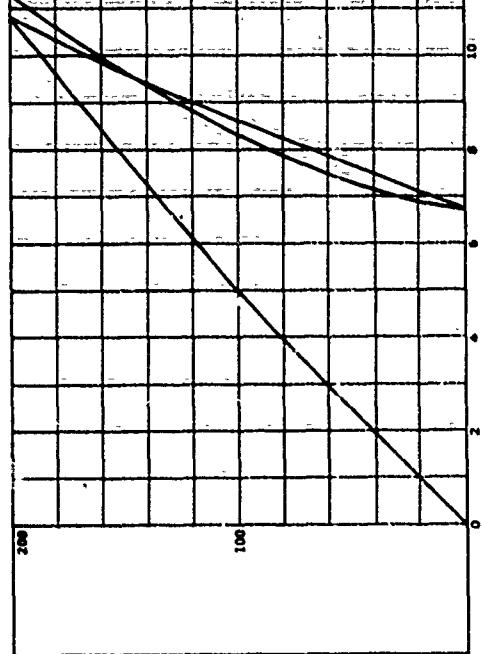
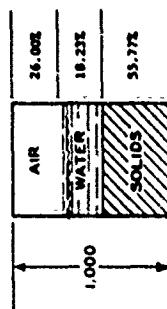
| | |
|---|-----------------|
| PROJECT: Geotechnical Institute of Technology S. G. | |
| Contract No.: BMG39-07-C-0031 | |
| AREA: | |
| BORING NO. | SAMPLE NO.: 350 |
| DEPTH: | DATE: |
| EL. | |
| LL. | PL. 17 |
| | PI. 19 |
| DESCRIPTION: Seaching Hill 1497 | |
| Terrestrial Cycle Shear @ 35% and 75% | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.11 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | s ₀ | 41.23 % |
| DRY DENSITY | γ_d | 93.96 PCF |
| WET DENSITY | γ_w | 105.34 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM. |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE

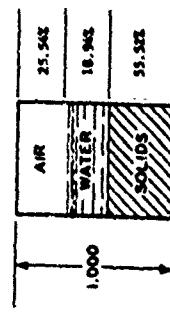


PROJECT: *Construction of School No. 3-002*
Contract No.: *MCAG-67-G-0031*

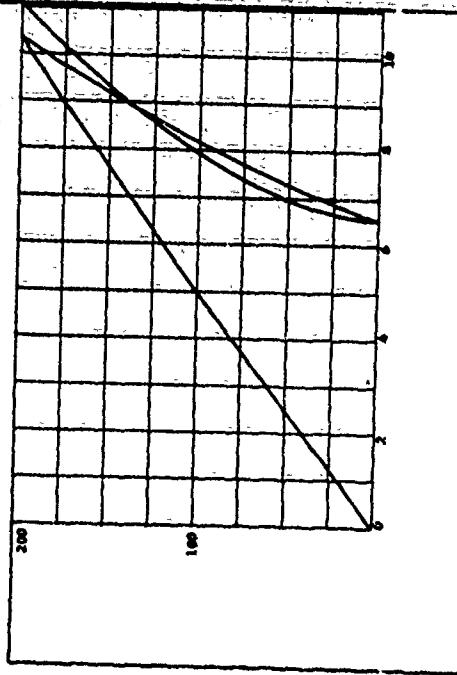
| BORING NO., DEPTH EL. | SAMPLE NO.: 1801 | | |
|-----------------------------|------------------|----|----|
| | DATE | P1 | 19 |
| LL | 36 | PL | 17 |

DESCRIPTION: *Natural Silty Clay*
TESTED: *Cyclic Creep*.
CYCLE SHEAR @ 15%.

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.46 % |
| VOID RATIO | E _o | 0.69 |
| SATURATION | S _s | 42.36 % |
| DRY DENSITY | γ_d | 95.30pcf |
| WET DENSITY | γ_w | 105.35pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.69 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |

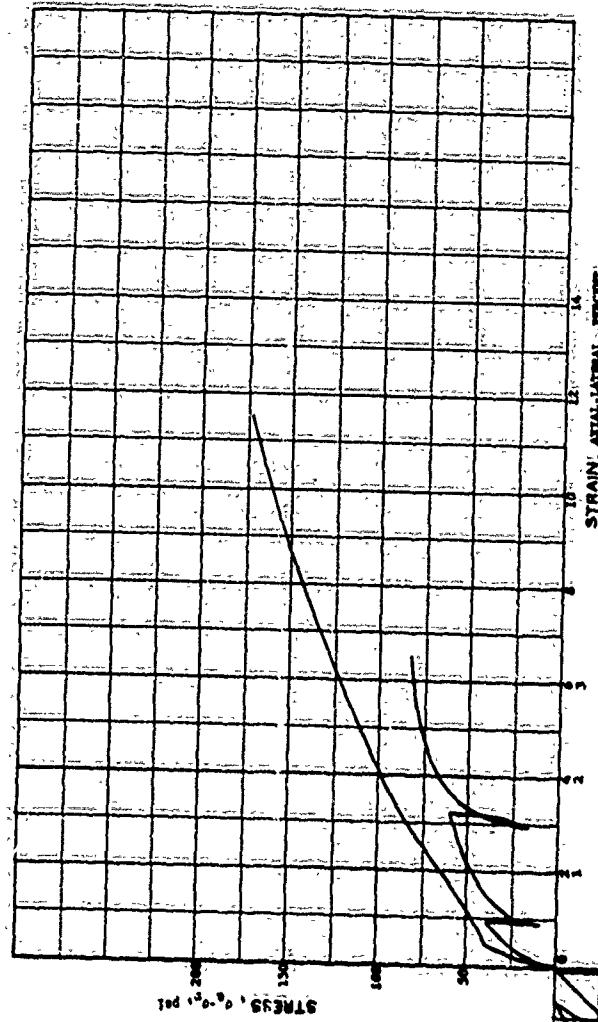


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, psi

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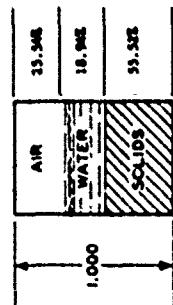
STRAIN, AXIAL LATERAL

STRESS, psi

| | |
|--|-----------------|
| PROJECT: Central Institute of Technology - 2-502 | |
| Concrete No: DMAS9-67-C-0051 | |
| AREA: | |
| BORING NO.: | SAMPLE NO.: 201 |
| DEPTH (EL.): | DATE: |
| LL: | PL: |
| PT: | 19 |
| DESCRIPTION: Basaltic Bullock | |
| Triaxial Cycle Compression, Cycle Number 0.333 | |

VOLUMETRIC STRAIN, $\Delta V/V$, PERCENT

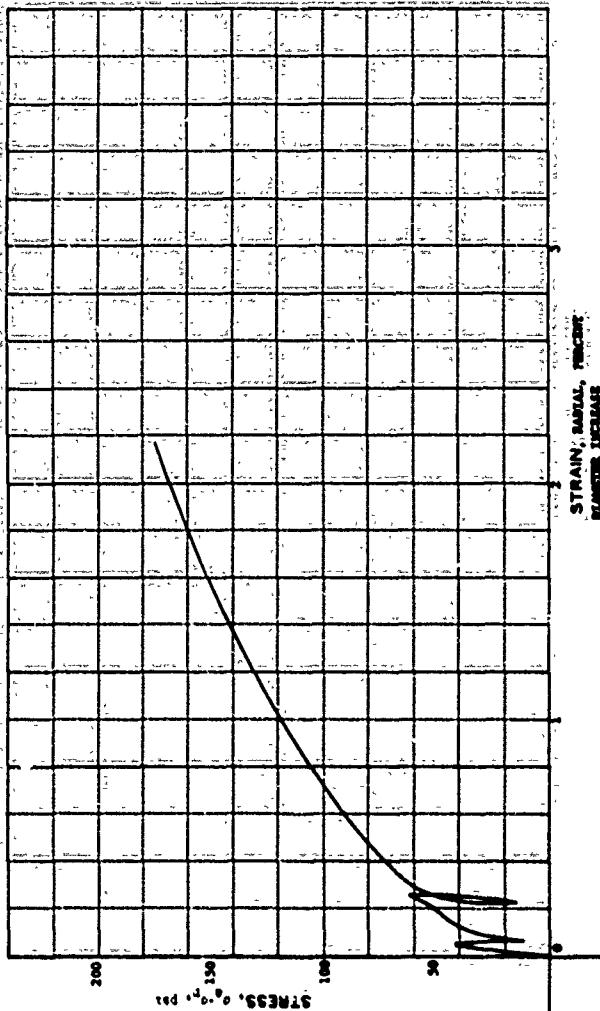
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.64 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S _s | 42.39 | % |
| DRY DENSITY | γ_d | 93.53 | pcf |
| WET DENSITY | γ_w | 105.25 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, psi

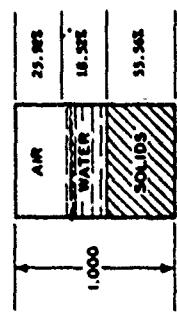
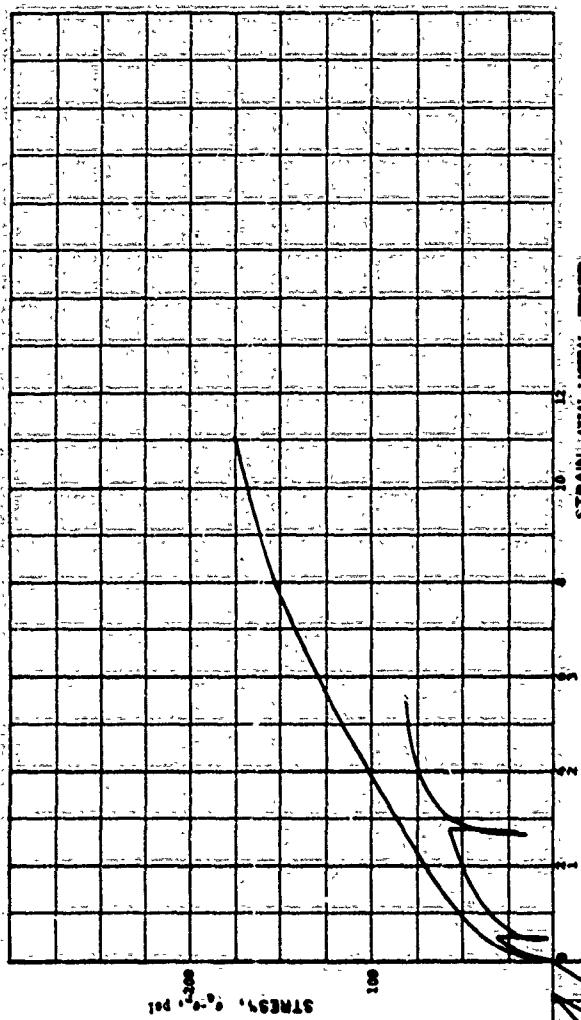
221



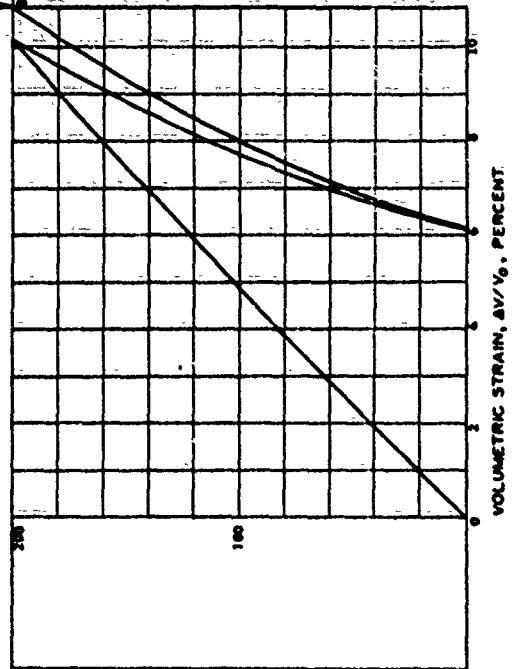
| | | | |
|-------------------------------|--|----|-------|
| PROJECT | Conebeam Institute of Technology 3-600 | | |
| Corehole No. | CBK3914-C-0051 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 263 | | |
| DEPTH, FT. | DATE | | |
| EL. | PL | 17 | P1 59 |
| DESCRIPTION: Michie Hill Clay | | | |
| Triaxial-Cyclic Shear 35% | | | |

VOLUMETRIC STRAIN, AV/V₀, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.34 % |
| VOID RATIO | e ₀ | 0.68 |
| SATURATION | S ₀ | 41.66 % |
| DRY DENSITY | γ _d | 90.61pcf |
| WET DENSITY | γ _w | 105.12pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |



HYDROSTATIC COMPRESSION PHASE

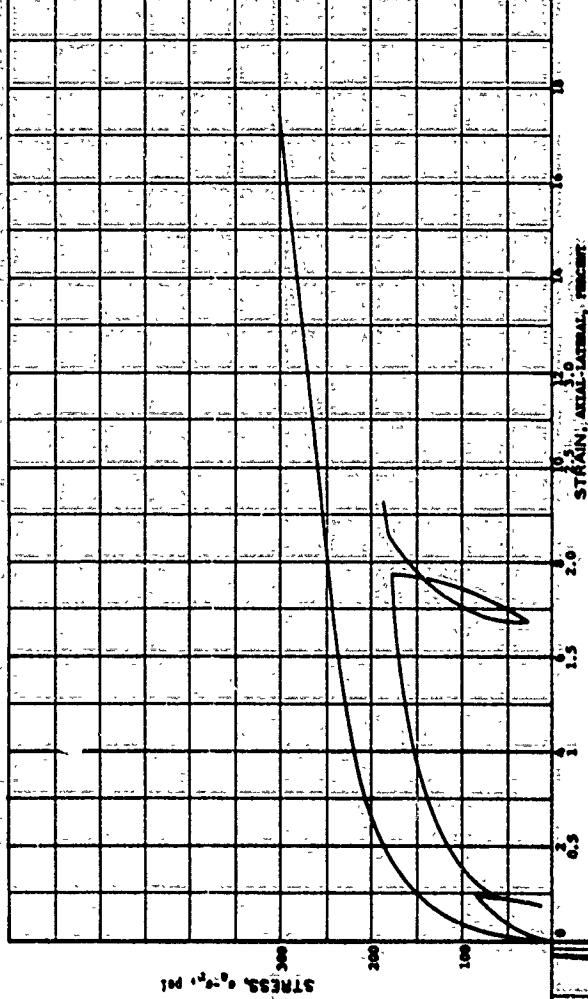
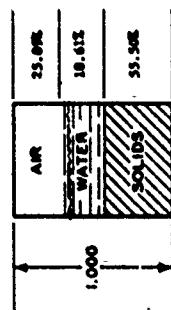


HYDROSTATIC PRESSURE, P, PSI

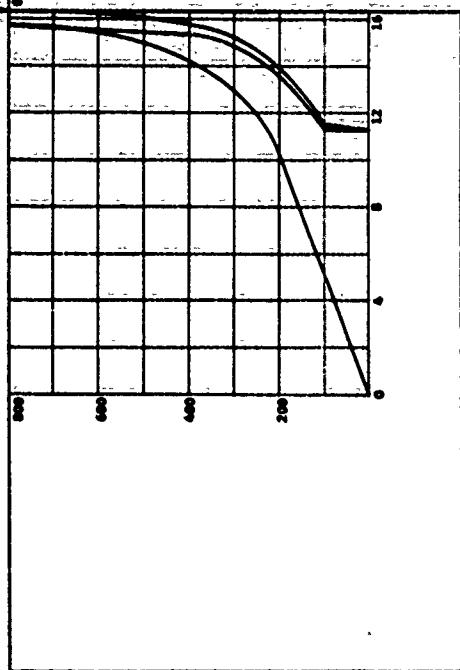
| | | | |
|--|--|----|-------|
| PROJECT | Georgia Institute of Technology 3-6001 | | |
| Contract No. N6019-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 346 | | |
| DEPTH EL | DATE | | |
| LL | PL | 17 | PL 19 |
| DESCRIPTION: Machine Mill Clay Tricalcium Silicate Concrete, Opt. Slab 0.335 and 7.5% | | | |

427

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.42 | % |
| VOID RATIO | e ₀ | 0.89 | |
| SATURATION | S ₀ | 41.82 | % |
| DRY DENSITY | γ_d | 98.51 | pcf |
| WET DENSITY | γ | 105.12 | pcf |
| SPECIFIC GRAVITY | G ₀ | 2.76 | |
| SPECIMEN DIAMETER | D ₀ | 3.69 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE

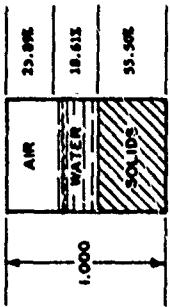


VOLUME STRAIN, $\Delta V/V_0$, PERCENT

| | |
|--|-----------------|
| PROJECT: General Institute of Technology I-162 | |
| Contract No. NACA 3-67-C-001 | |
| AREA: | |
| BORING NO.: | SAMPLE NO.: 272 |
| DEPTH EL: | DATE: |
| LL: | PL: |
| 16 | 17 |
| PR: | 19 |

DESCRIPTION: ~~Vertical Mill Gley~~
Triaxial-~~Cones~~ Cones, Cycle Shear @ 35° and 0.25°

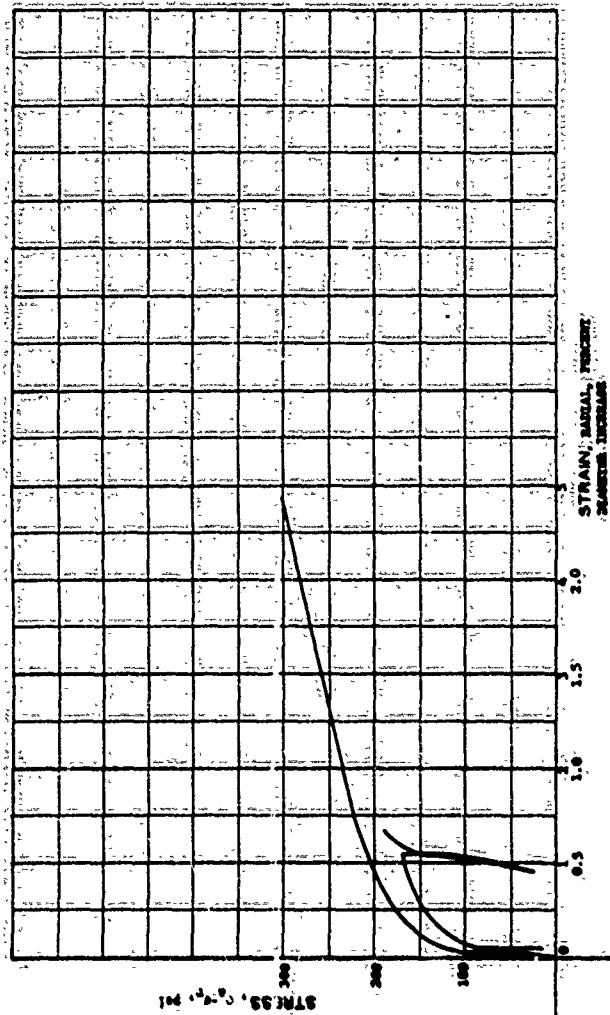
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.42 % |
| VOID RATIO | e ₀ | 0.89 |
| SATURATION | S _s | 41.82 % |
| DRY DENSITY | D _d | 99.51 PCF |
| WET DENSITY | D _w | 105.12 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.65 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

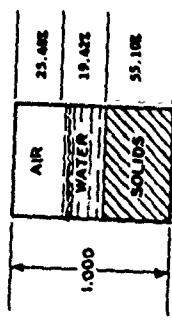
224



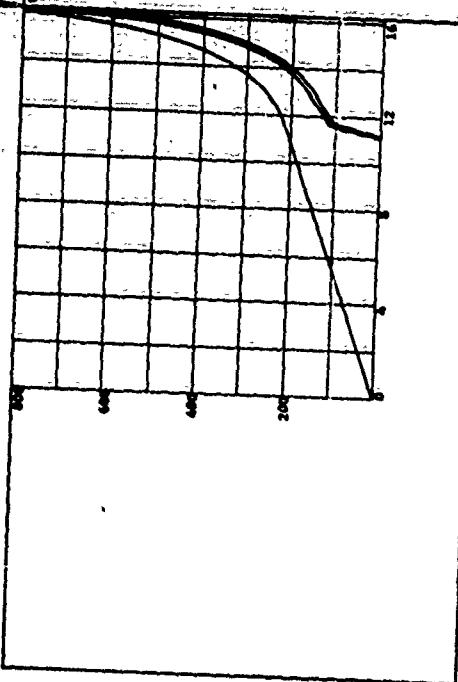
| | | | |
|---|-------------------------------------|-----|----|
| PROJECT | Sample Test Site of Technology B-02 | | |
| Corehole No. | B0039-07-C-001 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 272 | | |
| DEPTH EL. | DATE | | |
| L.L. | 36 | PL. | 17 |
| | | PT. | 19 |
| DESCRIPTION: Soil Test Bulb Clay | | | |
| Triaxial-Cyclic Shear @ 350 psi (15%) | | | |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 13.04 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S ₀ | 43.25 % |
| DRY DENSITY | γ _d | 81.85 PCF |
| WET DENSITY | γ _w | 104.95 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.90 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



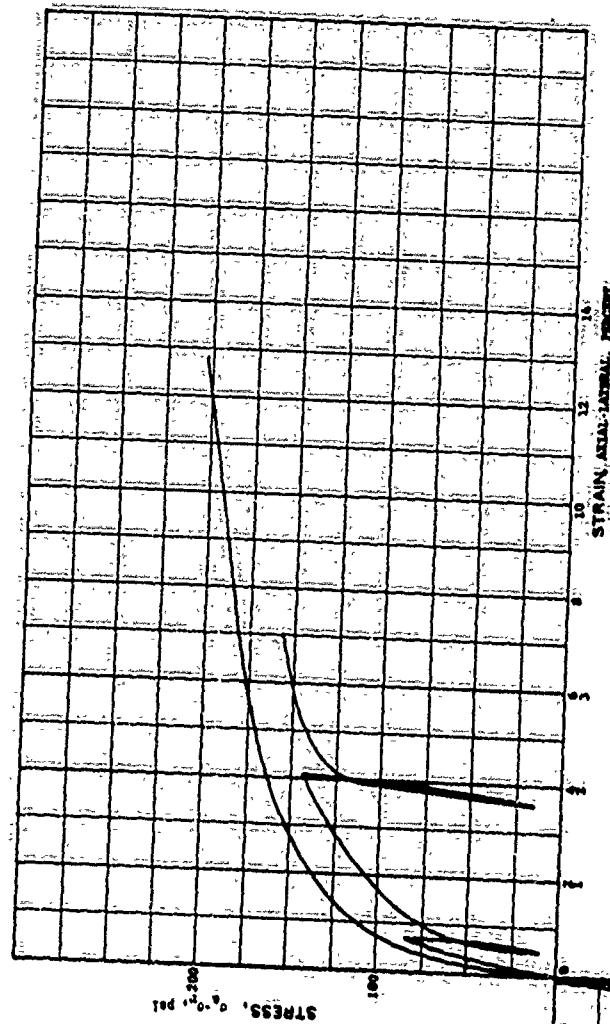
HYDROSTATIC COMPRESSION PHASE



VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

HYDROSTATIC PRESSURE, P, PSI

225

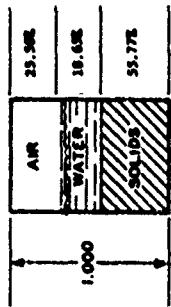


STRAIN, AXIAL-AXIAL, PERCENT

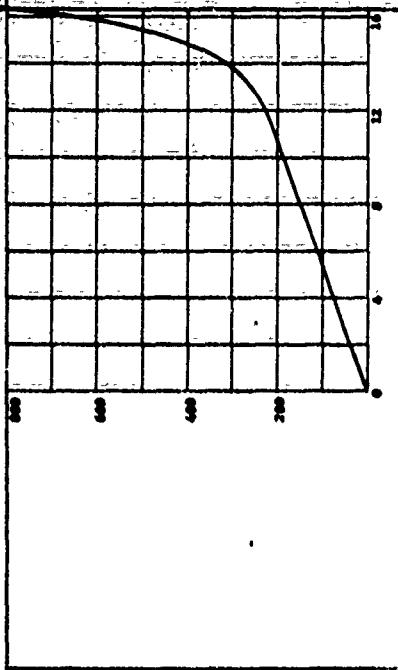
| | | | |
|--------------|--|-----|--------|
| PROJECT | Georgia Institute of Technology B-600 | | |
| Contract No. | B-600-67-C-001 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | 274 | |
| DEPTH EL. | DATE | | |
| LL. | PL. | 17 | PL 19' |
| DESCRIPTION | Inorganic Soil Clay Strained Under Hydrostatic Pressure 0, 25, and 50 | | |

Inorganic Soil Clay
Strained Under Hydrostatic Pressure 0, 25, and 50

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.39 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S _o | 42.15 | % |
| DRY DENSITY | γ _d | 99.26 | pcf |
| WET DENSITY | γ _w | 165.39 | pcf |
| SPECIFIC GRAVITY | G _s | 2.79 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |

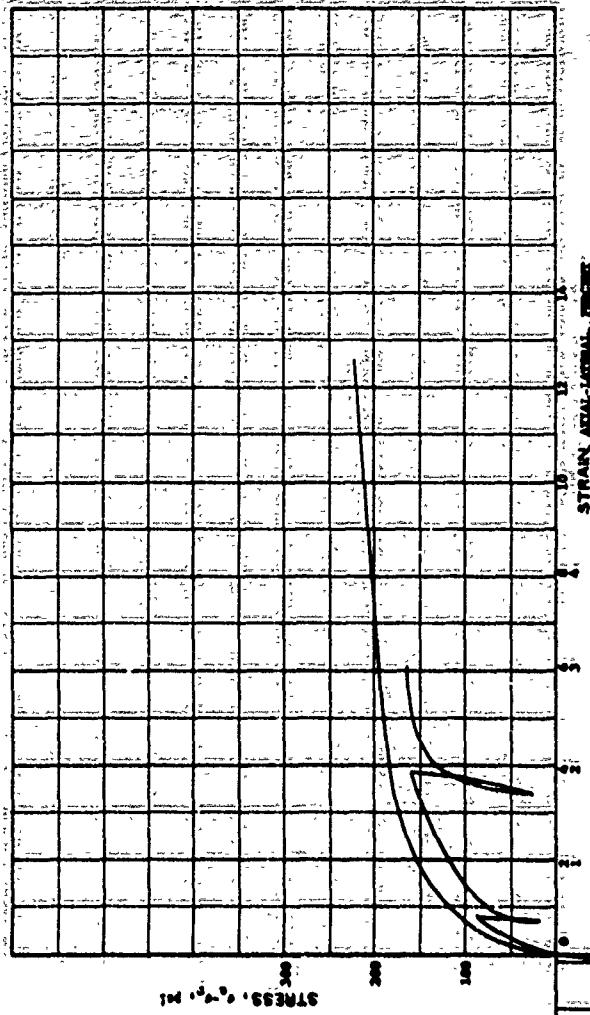


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

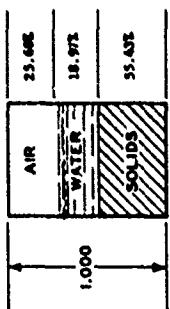
226



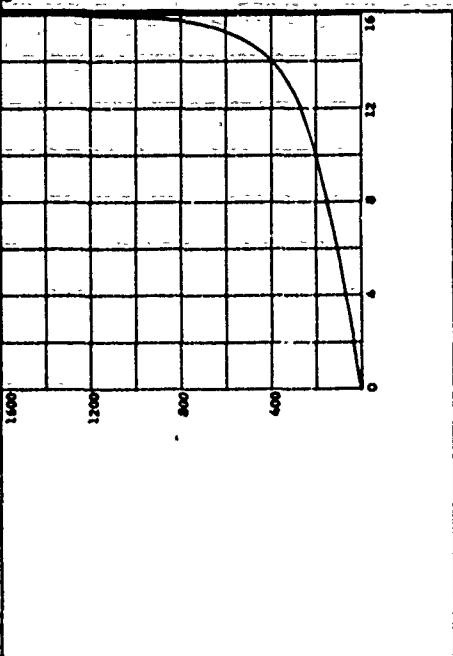
| | |
|--|----------------|
| PROJECT: Geotechnical Institute of Technology 13-002 | |
| Contract No. 80409-07-C-0001 | |
| AREA: | |
| BORING NO. | SAMPLE NO. 275 |
| DEPTH CL. | DATE: |
| L.L. | PL. |
| | 17 |
| | PL. 19 |
| DESCRIPTION: Saturated fill clay | |
| Initial-Static Stress @ 250 and 175 | |

VOLMETRIC STRAIN, GV/V, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.68 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | s ₀ | 42.54 % |
| DRY DENSITY | γ _d | 95.38 PCF |
| WET DENSITY | γ | 105.22 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.90 CM |
| SPECIMEN HEIGHT | H ₀ | 7.60 CM |

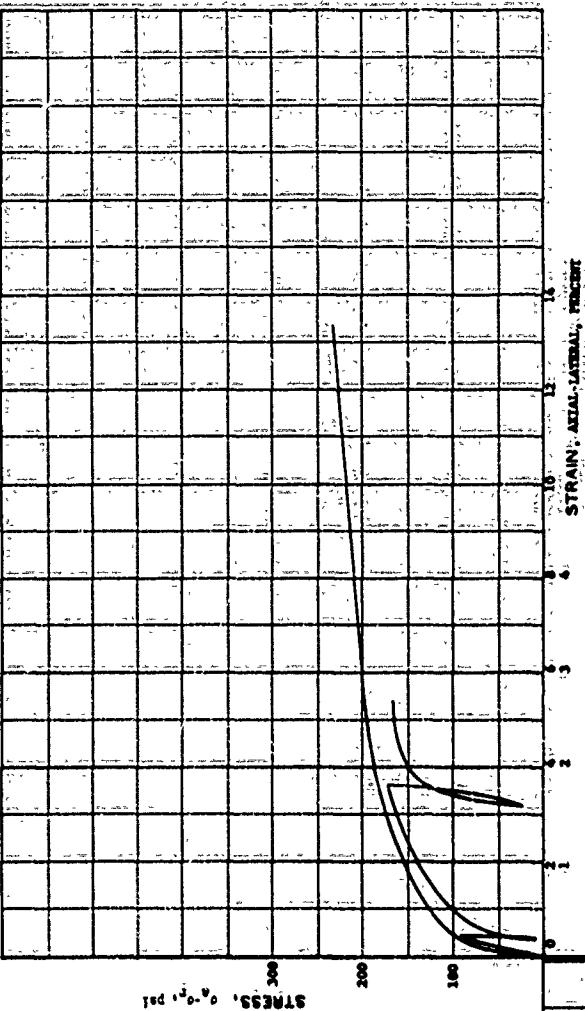


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

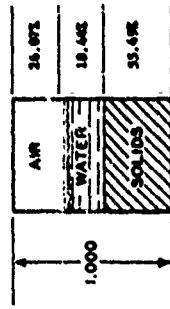


227

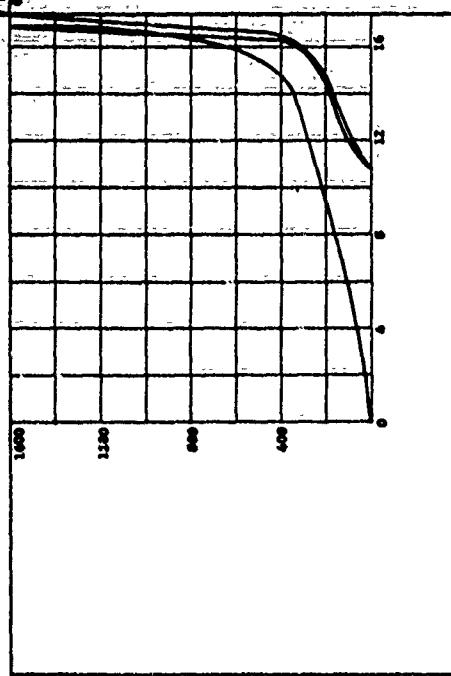
| | | | |
|--------------|--|----|----|
| PROJECT | Geotechnical Institute of Technology B-602 | | |
| Contract No. | BMA09-07-C-0031 | | |
| AREA: | | | |
| BORING NO.: | SAMPLE NO.: 217 | | |
| DEPTH: EL. | DATE | | |
| LL. | PL. | 17 | 19 |

DESCRIPTION: Mitchell Shallow clay
Triaxial-Cyclic Shear @ 35% and 75%

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.31 % |
| VOID RATIO | e _o | 0.48 |
| SATURATION | S _o | 41.44 % |
| DRY DENSITY | γ _d | 98.48 PCF |
| WET DENSITY | γ _w | 186.99 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D _o | 2.49 CM |
| SPECIMEN HEIGHT | H _o | 7.62 CM |

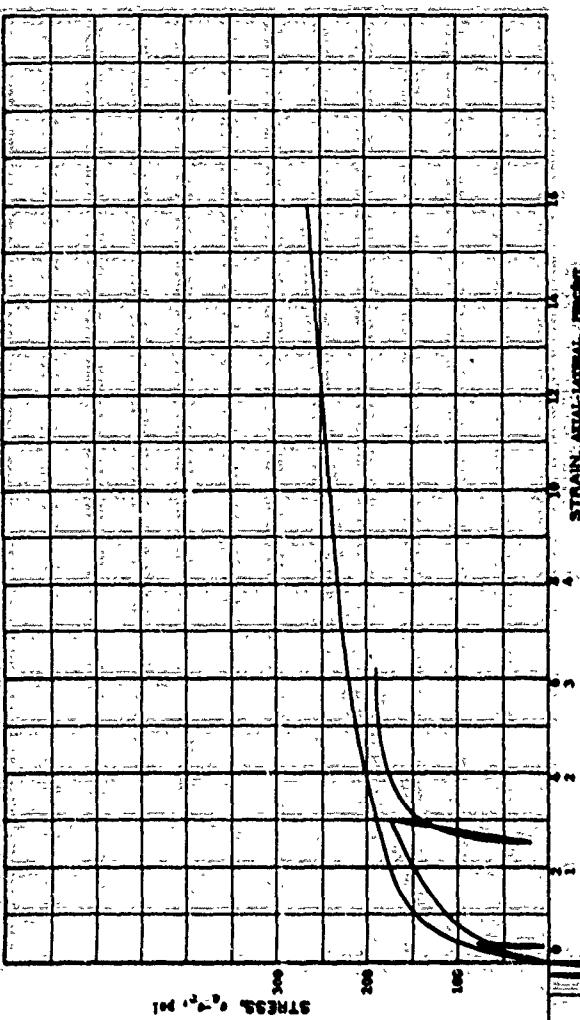


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

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STRAIN, ΔV/V₀, PERCENT

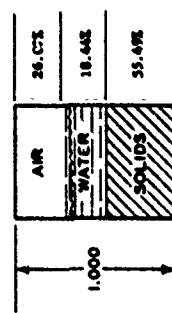
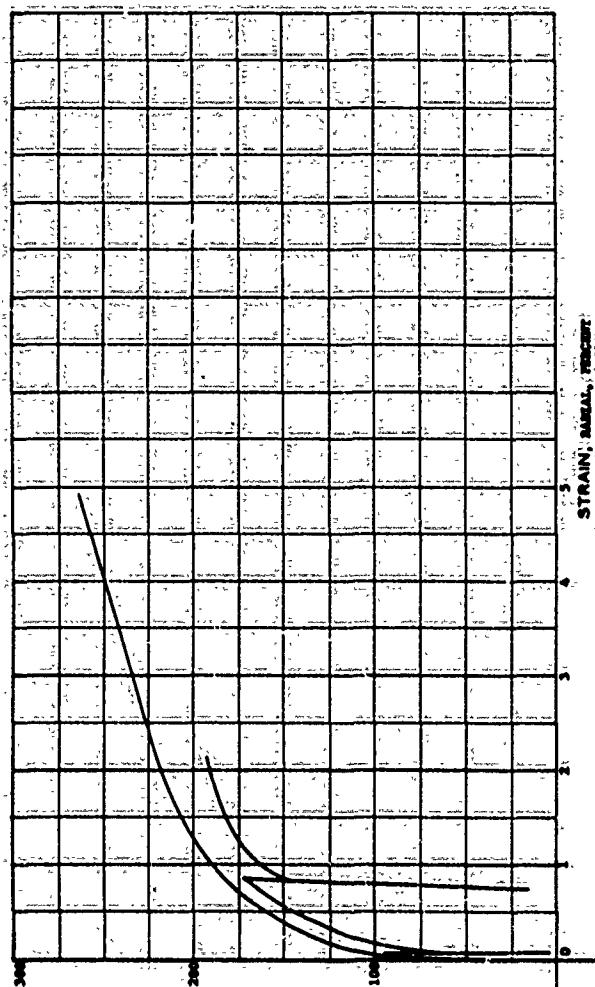
| PROJECT: Example Results of Test Series 3-601 | | | |
|---|---------------------|--------------------|----------|
| Corehole No. 3603-67-C-001 | | | |
| AREA: | | | |
| BORING NO. | DEPTH EL. LL. | DATE PL. AV. | PI 19 |
| 36 | 1600 | 17 | 19 |
| | 1200 | | |
| | 800 | | |
| | 400 | | |
| | 0 | | |

DESCRIPTION: Boring 3603-67-C-001 clay
Triaxial-Cyclic Compaction, Otsu Shear 0.32 and 1.23

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.31 % |
| VOID RATIO | e ₀ | 0.69 |
| SATURATION | S _w | 61.64 % |
| DRY DENSITY | γ_d | 93.48pcf |
| WET DENSITY | γ_w | 106.99pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 2.40 CM |
| SPECIMEN HEIGHT | H ₀ | 7.61 CM |

STRESS, 0.64 psi



HYDROSTATIC COMPRESSION PHASE

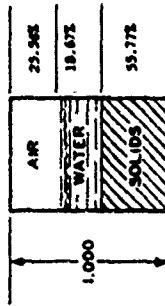
HYDROSTATIC PRESSURE, P, PSI

229

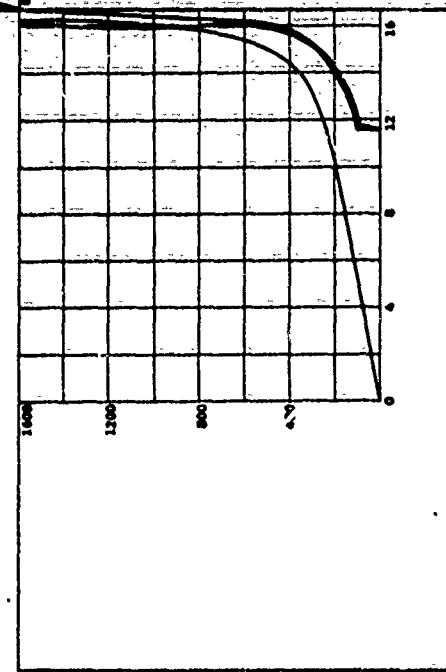
| PROJECT | | Strain-Sample Report | |
|----------------------------------|------------|----------------------|------|
| Contract No. MC339-67-C-0031 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | DEPTH | DATE |
| LL | PL | 17 | 19 |
| | | | |
| DESCRIPTION | | Machine Mill Clay | |
| Strain-Cycle Sheet 0-325 and 235 | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.49 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S _s | 42.21 | % |
| DRY DENSITY | γ _d | 50.56 | pcf |
| WET DENSITY | γ _w | 105.61 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _s | 3.49 | cm |
| SPECIMEN HEIGHT | H _s | 7.62 | cm |

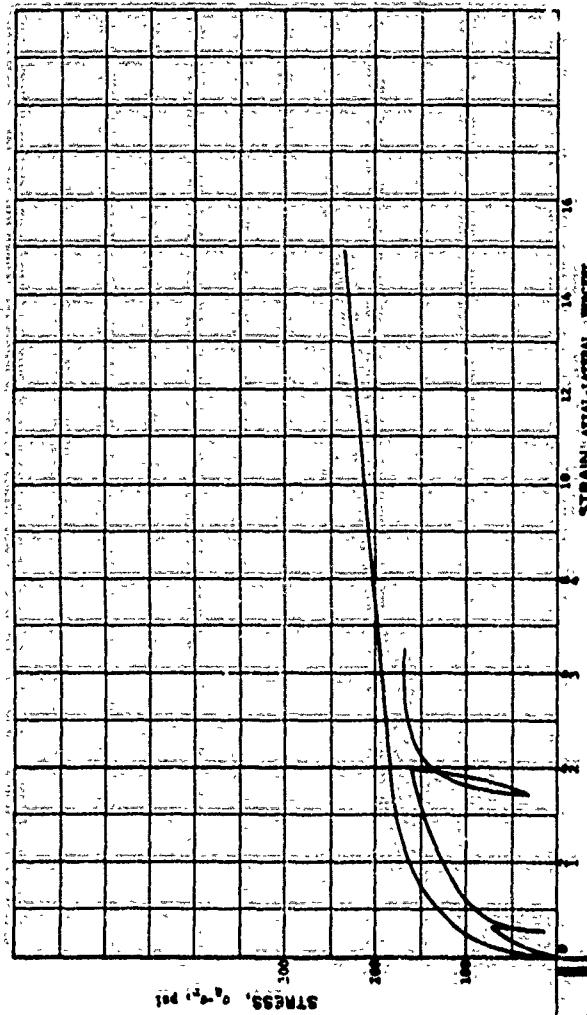


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

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STRESS, ATM. STRAIN, PERCENT

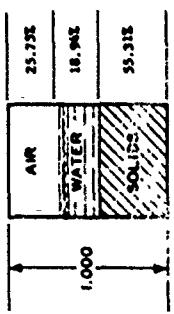
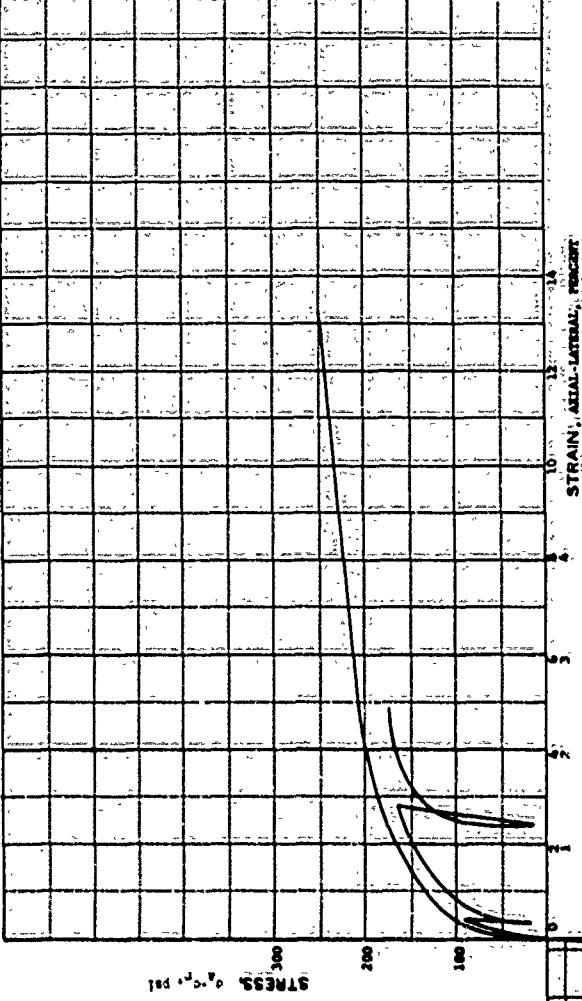
| | |
|--|-----------------|
| PROJECT: Georgia Institute of Technology B-402 | |
| Contract No.: 34059-62-0051 | |
| AREA: | |
| BORING NO. | SAMPLE NO.: 216 |
| DEPTH/EL. | DATE: |
| LL | PL |
| 10 | 17 |
| 12 | P1 |
| 14 | 19 |

DESCRIPTION: Calcareous Ball Clay

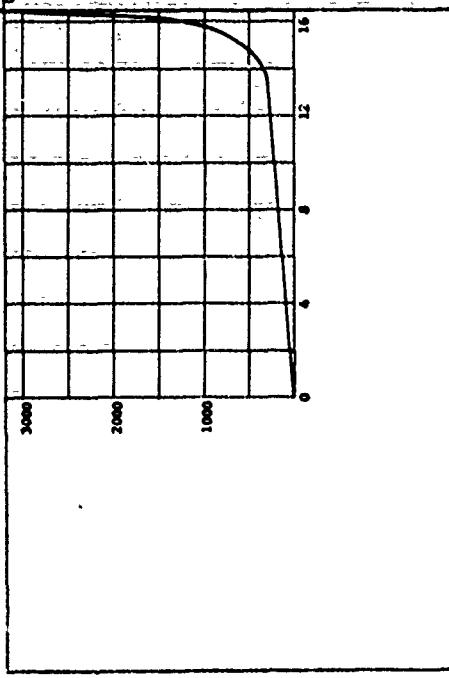
3rd Ed. Oct. 1968 Corrections, Cycle Starts @ 35° and 75°

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.48 % |
| VOID RATIO | e ₀ | 0.61 |
| SATURATION | S _o | 42.37 % |
| DRY DENSITY | γ _d | 93.19 PCF |
| WET DENSITY | γ | 105.01 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.61 CM |



HYDROSTATIC COMPRESSION PHASE

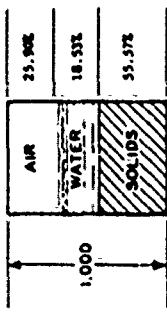


HYDROSTATIC PRESSURE, P, PSI

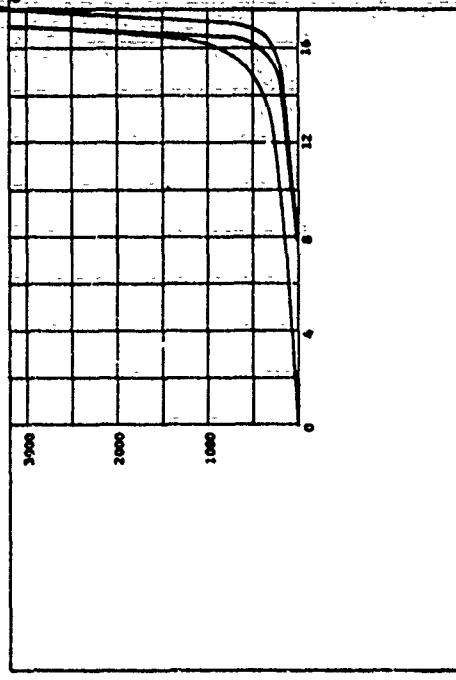
231

| | |
|---|-----------------------|
| PROJECT: <u>Central Institute of Technology B-602</u> | |
| Contract No. <u>MEAS-67-C-0031</u> | |
| AREA: | |
| BORING NO. | SAMPLE NO. <u>202</u> |
| DEPTH | DATE |
| EL. | |
| LL | PL |
| 36 | 37 |
| P1 | 19 |
| DESCRIPTION: <u>Wetted Mill clay</u> | |
| Triaxial-Single Shear @ 33% and 35% | |

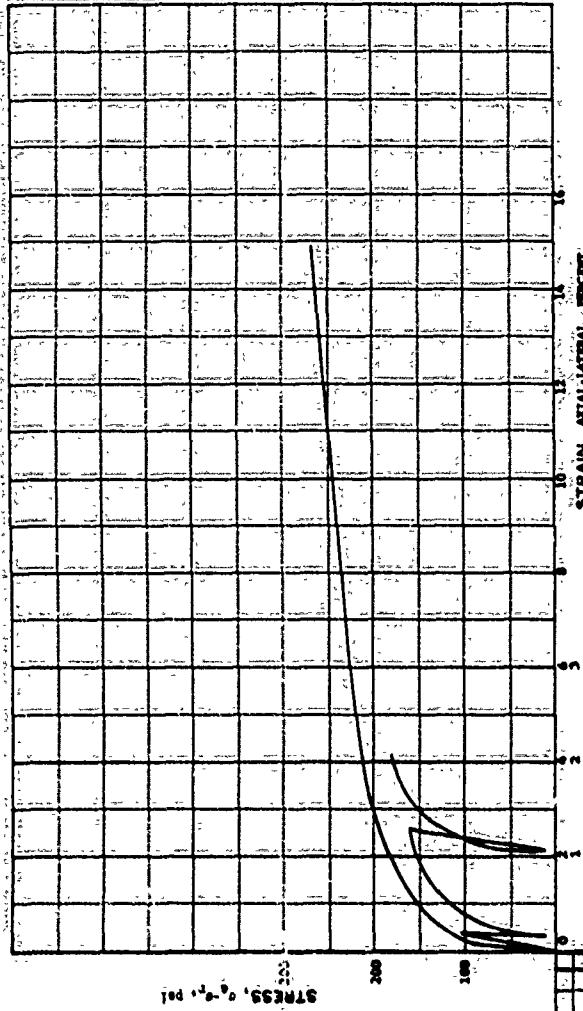
| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.35 % |
| VOID RATIO | e_0 | 0.80 |
| SATURATION | S_g | 41.70 % |
| DRY DENSITY | γ_d | 90.62pcf |
| WET DENSITY | γ_w | 105.18pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_0 | 3.49 cm |
| SPECIMEN HEIGHT | H_0 | 7.61 cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

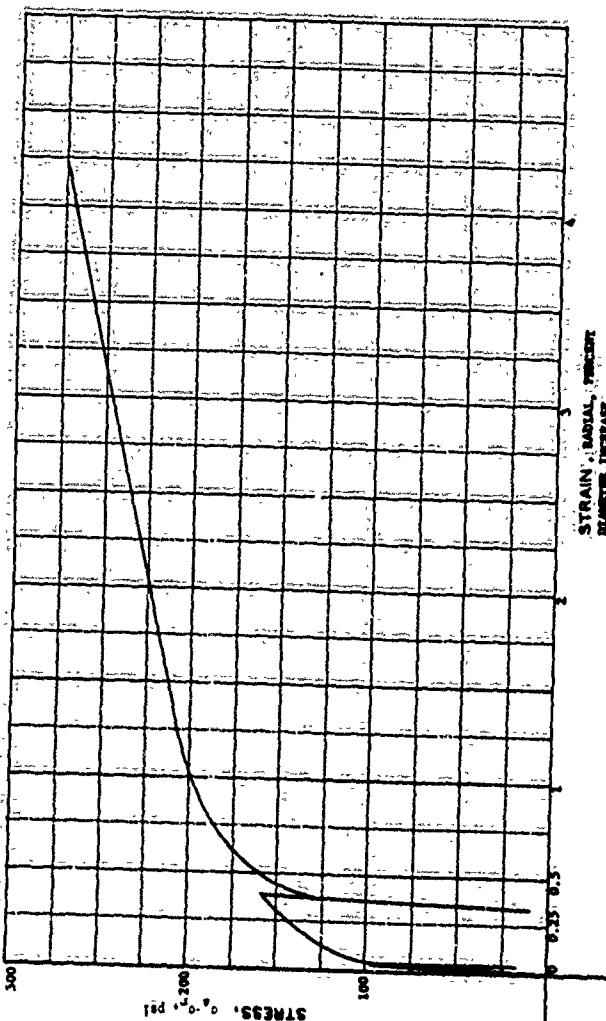


STRESS, Q-Q, PSI

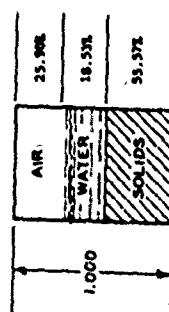
STRAIN, AXIAL STRAIN, PERCENT

| | |
|--------------|---|
| PROJECT | Georgia Institute of Technology B-602 |
| Contract No. | DEA/DP-07-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO.: 205 |
| DEPTH | DATE: |
| EL. | |
| LL | 17 |
| PL | 19 |
| DESCRIPTION | Draining Triaxial Test |
| | Triaxial-Cyclic Compression Cycle Shear @ 35% and 15% |

| | | |
|------------------|----------------|------------|
| WATER CONTENT | W | 12.35 % |
| VOID RATIO | e ₀ | 0.60 |
| SATURATION | S _o | 61.70 % |
| DRY DENSITY | γ _d | 91.42 PCF |
| WET DENSITY | γ _w | 105.18 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SCIMEN DIAMETER | D ₀ | 3.49 CM |
| SCIMEN HEIGHT | H ₀ | 7.91 CM |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P , psi

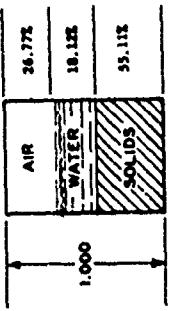
233

| PROJECT: Georgia Institute of Technology S-402 | |
|--|----------------|
| Contract No. NACA39-11-C-0001 | |
| AREA: | |
| BORING NO. | SAMPLE NO. 203 |
| DEPTH | DATE |
| EL. | |
| LL | PL |
| SL | 17 |
| | PL |
| | 19 |

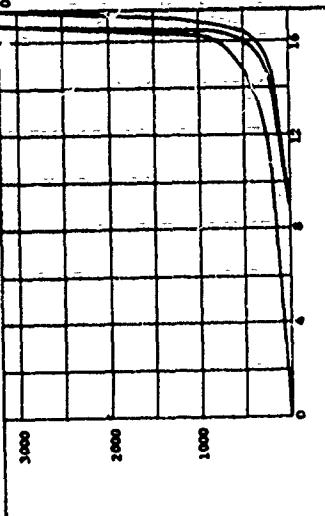
DESCRIPTION: Machine Milligal
Triaxial-Circle Shear @ 132 and 175

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.18 % |
| VOID RATIO | e ₀ | 9.81 |
| SATURATION | s ₀ | 40.36 % |
| DRY DENSITY | γ_d | 92.85pcf |
| WET DENSITY | γ_w | 164.15pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.60 cm |



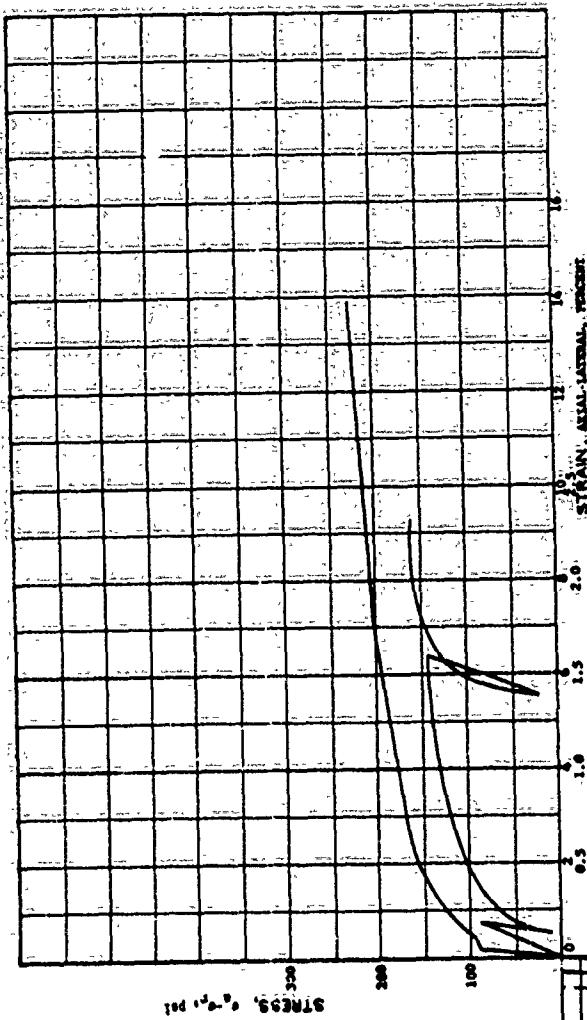
HYDROSTATIC COMPRESSION PHASE



VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

HYDROSTATIC PRESSURE, P, PSI

234

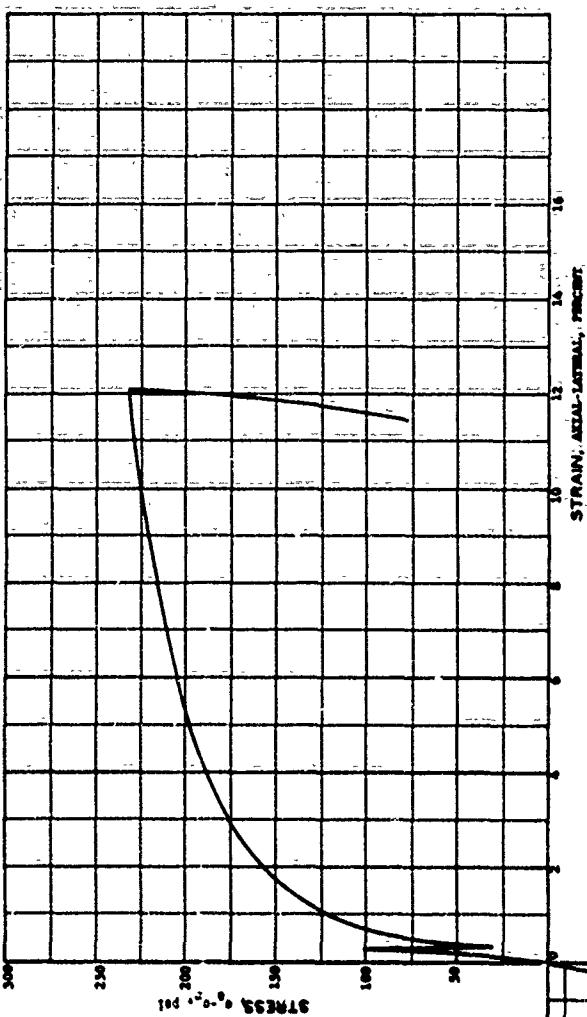


AXIAL STRAIN, ϵ_{axial}

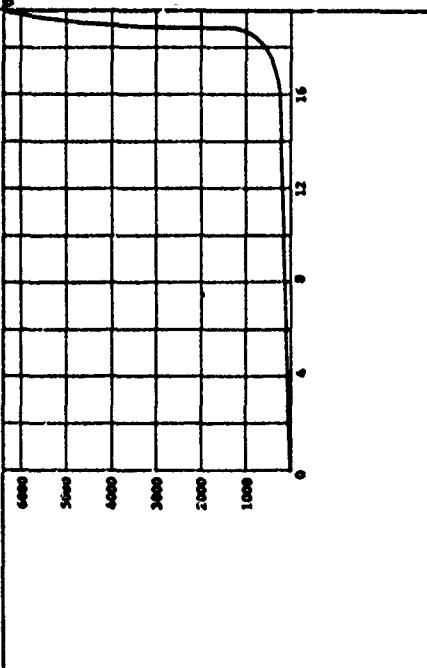
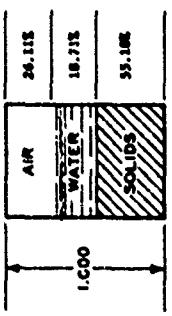
| | | | | |
|--------------|---------------------------------------|----|----|----|
| PROJECT | Georgia Institute of Technology 3-403 | | | |
| Contract No. | MEASST-87-C-0031 | | | |
| AREA | | | | |
| BORING NO. | SAMPLE NO.: 208 | | | |
| DEPTH EL. | DATE | | | |
| L.L. | PL | 11 | PT | 19 |

DESCRIPTION: Medium Silt Clay
Triaxial-Open Compaction Cycle Shear @ 35% and 75%

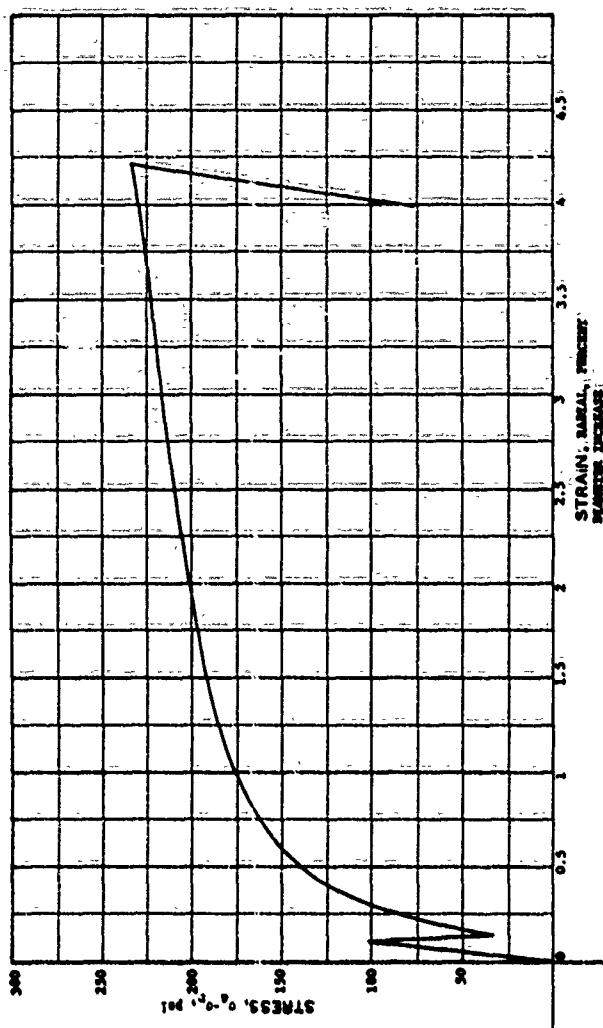
| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.54 % |
| VOID RATIO | e ₀ | 0.82 |
| SATURATION | s ₀ | 61.75 % |
| DRY DENSITY | γ _d | 98.97pcf |
| WET DENSITY | γ _w | 104.45pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE

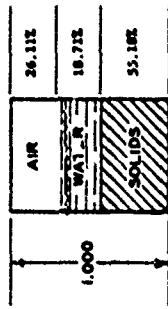


| | |
|---|----------------------------------|
| PROJECT: Georgia Institute of Technology B-502. | |
| Contract No. DACA39-67-C-0051 | |
| AREA: | SAMPLE NO. 284 |
| BORING NO.: | DATE: |
| DEPTH: | |
| EL. | |
| LL. | PIL 17 P1 19 |
| DESCRIPTION: <i>Mechanics Hill Clay</i> | <i>Initial-Cycle Shear @ 35%</i> |



HYDROSTATIC COMPRESSION PHASE

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.56 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S _o | 41.15 % |
| DRY DENSITY | γ _d | 92.97pcf |
| WET DENSITY | γ _w | 104.65pcf |
| SPECIFIC GRAVITY | G _s | 2.79 |
| SPECIMEN DIAMETER | D ₀ | 3.29 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |



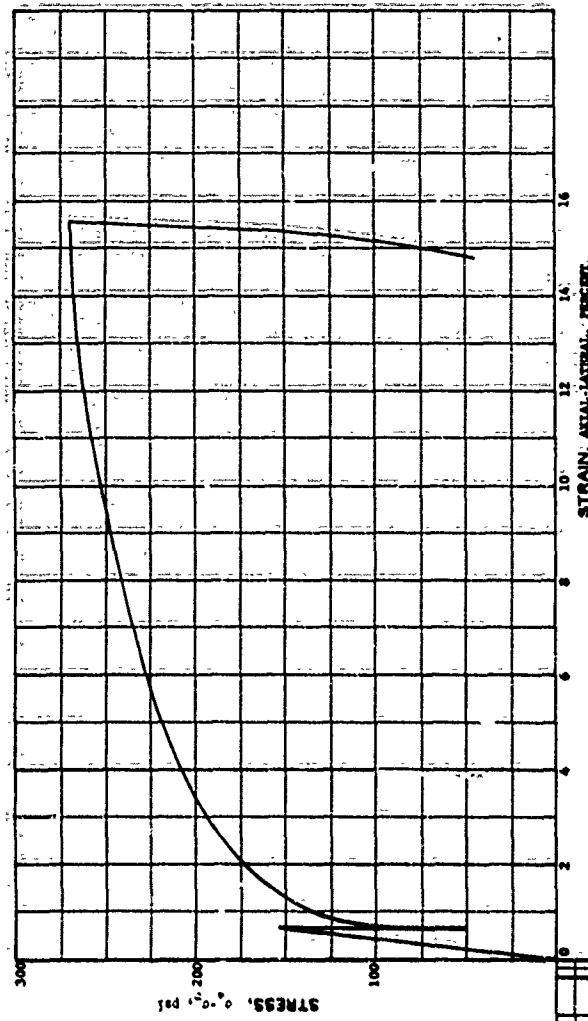
HYDROSTATIC PRESSURE, P, PSI

236

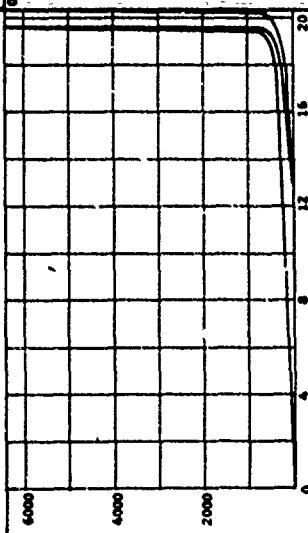
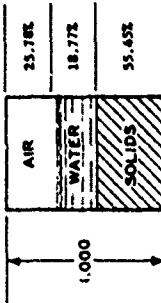
| | |
|--|-----------------|
| PROJECT: Central Institute of Technology & Co. | |
| Contract No. BCA59-67-C-0051 | |
| AREA: | SAMPLE NO.: 10A |
| BORING NO.: | DEPTH EL: |
| DATE: | PL: 17 |
| LL: 36 | PL: 19 |
| DESCRIPTION: <i>Weathered Silicate</i> | |
| TESTED CYCLE SHEAR @ 35% | |

VOLUME TRAC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.53 | % |
| VOID RATIO | e _o | 0.80 | |
| SATURATION | S _o | 42.19 | % |
| DRY DENSITY | γ_d | 93.43 | pcf |
| WET DENSITY | γ_w | 105.14 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| ECMEN DIAMETER | D _b | 3.49 | cm |
| SPECIMEN HEIGHT | H _b | 7.63 | cm |

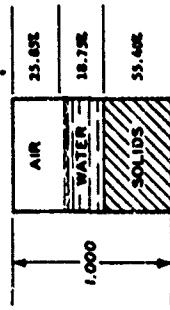


HYDROSTATIC COMPRESSION PHASE

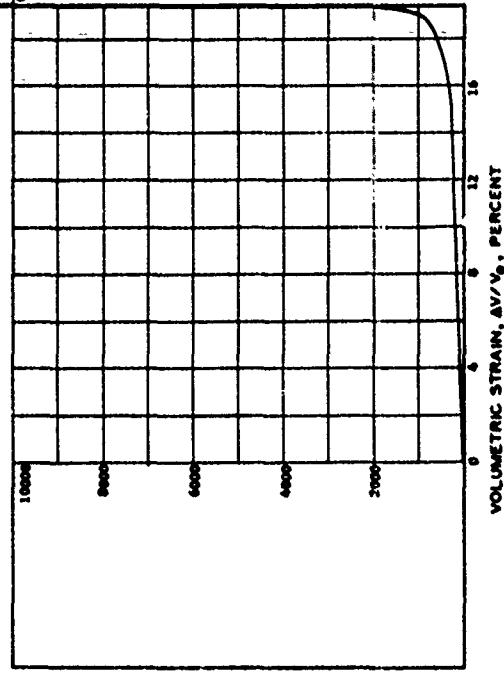


| | |
|---|----------------|
| PROJECT: Georgia Institute of Technology B-600. | |
| Core Test No. DCAAS2-07-C-0051 | |
| AREA | SAMPLE NO. 290 |
| BORING NO. | DATE |
| DEPTH | |
| EL | |
| LL | PL |
| 36 | 17 |
| | PT. 19 |
| DESCRIPTION: Weathered Null clay | |
| Triaxial-Cell Configuration, Cyclic Shear @ 1% | |

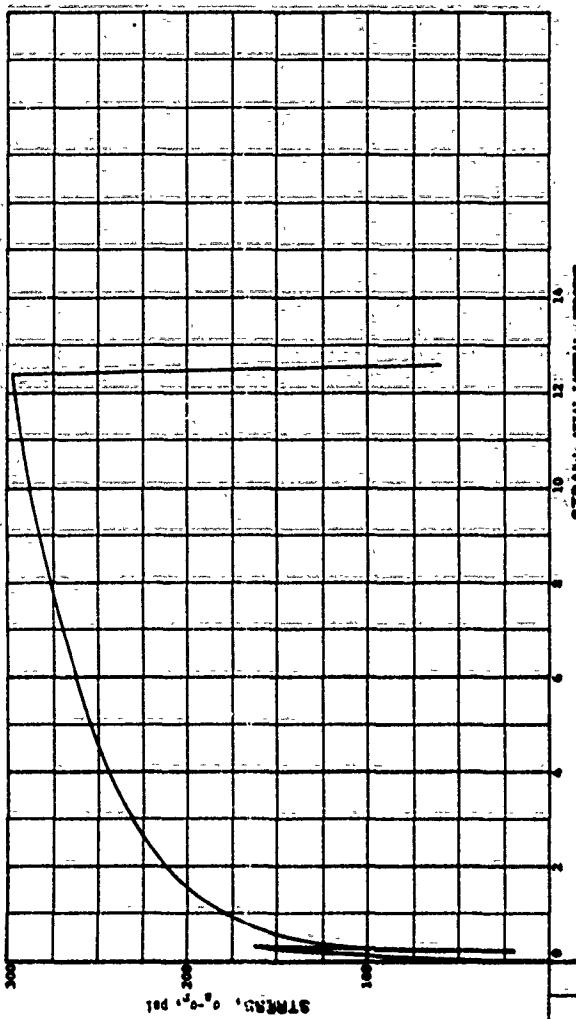
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.53 % |
| VOID RATIO | e ₀ | 0.61 |
| SATURATION | S ₀ | 42.04 % |
| DRY DENSITY | γ_d | 99.34 PCF |
| WET DENSITY | γ_w | 109.60 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

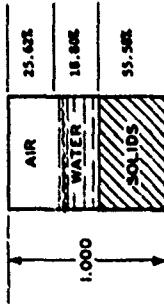


238

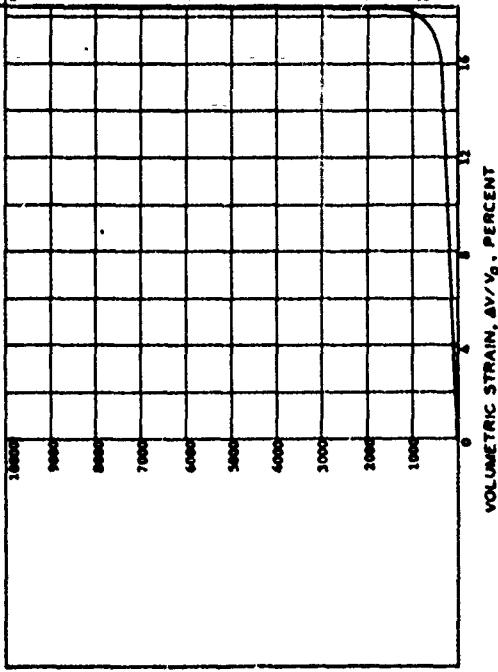
| | | | |
|--------------|---------------------------------------|----------------|----------------|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. | MCA99-67-C-0051 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 207 | | |
| DEPTH EL. | DATE | P _L | P _T |
| LL | 26 | 17 | 19 |

DESCRIPTION: MacIntosh Hill Clay
Transient-Cyclic Shear @ 35%

| | | |
|------------------|----------------|-----------|
| WATER CONTENT | W | 12.53 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S _o | 62.52 % |
| DRY DENSITY | γ_d | 97.65pcf |
| WET DENSITY | γ_w | 105.36pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| VOLUME DIAETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.61 cm |

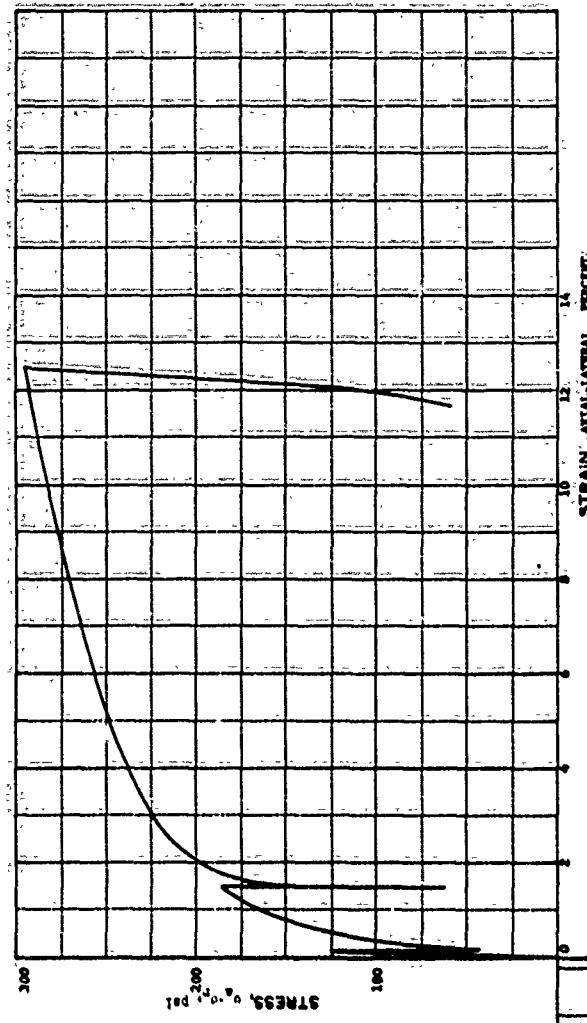


HYDROSTATIC COMPRESSION PHASE



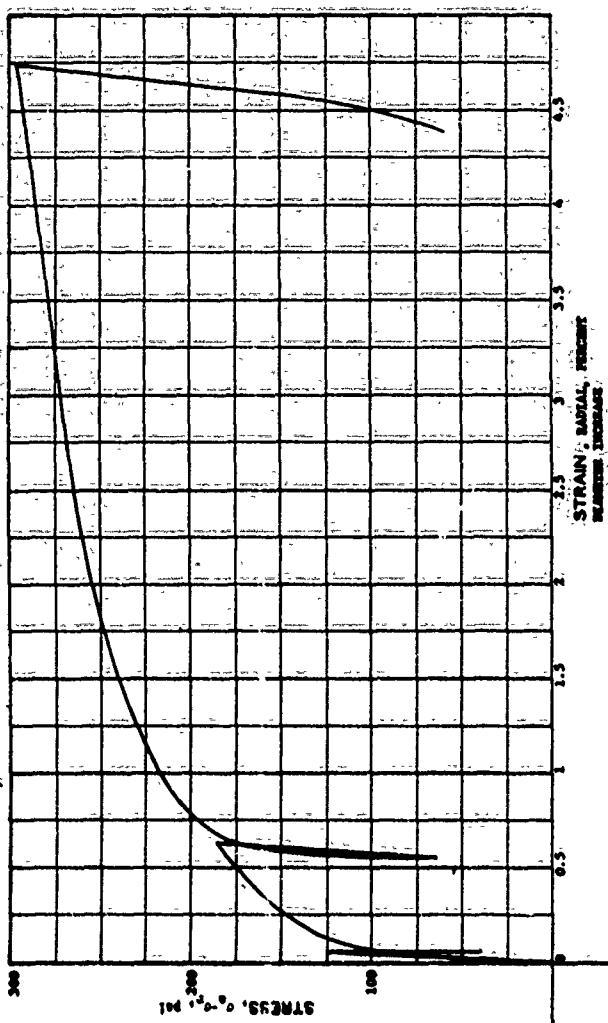
HYDROSTATIC PRESSURE, P, PSI

239

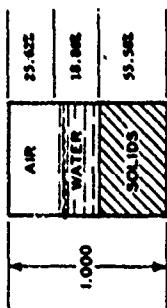


| | |
|--|-----------------|
| PROJECT <u>Geotechnical Test Results of Test Number 12-100</u> | |
| Contract No.: DASG-97-C-0031 | |
| AREA | SAMPLE NO.: 289 |
| BORING NO. | DATE |
| DEPTH E.L. | |
| LL | PL |
| | 17 |
| | PI |
| | 19 |

DESCRIPTION: Wetting Kill Clay
Triaxial-Cycle Shear @ 3% and 7.5%



HYDROSTATIC COMPRESSION PHASE



| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.53 % |
| VOID RATIO | E ₀ | 0.80 |
| SATURATION | S ₀ | 42.32 % |
| DRY DENSITY | γ_d | 59.13 PCF |
| WET DENSITY | γ | 105.34 PCF |
| SPECIFIC GRAVITY | G ₀ | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 1.61 CM |

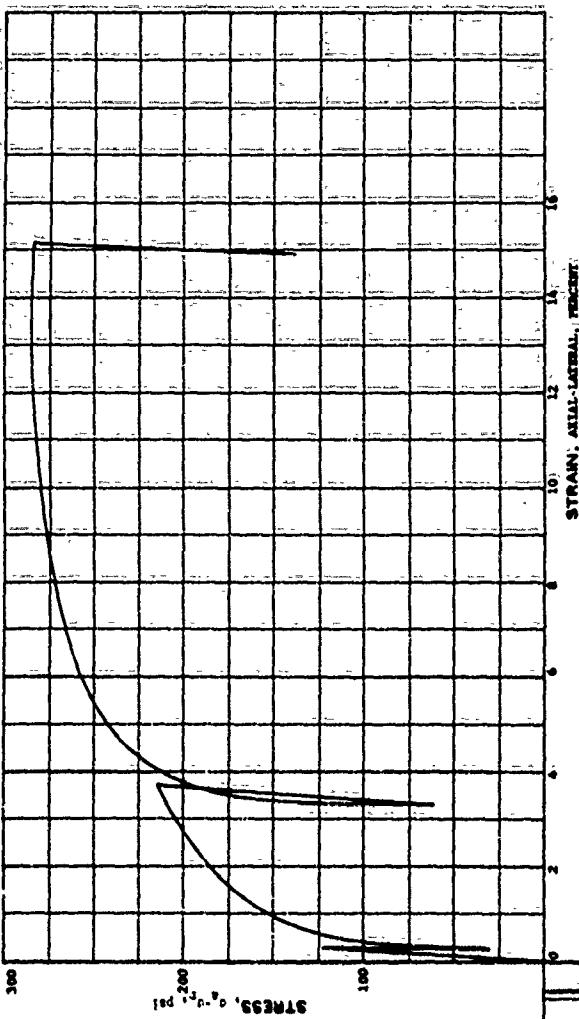
HYDROSTATIC PRESSURE, P, PSI

240

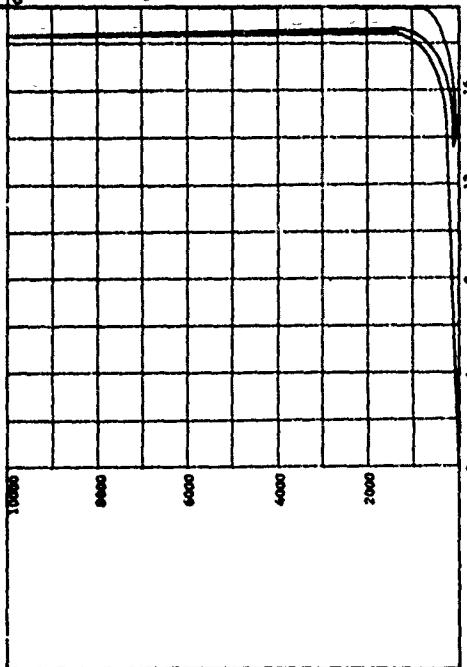
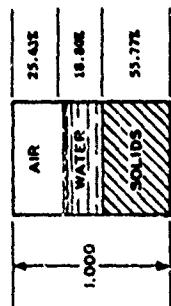
| | |
|--------------|------------------------------------|
| PROJECT | Central Terminal AC Terminal 3-102 |
| Contract No. | AC-102-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO.: 289 |
| DEPTH | DATE: |
| EL. | |
| LL | PL 17 PI 19 |
| DESCRIPTION | Mechanistic Silty Clay |
| | Triaxial-Cyclic Shear @ 35° at 75% |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.49 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_o | 42.32 % |
| DRY DENSITY | γ_d | 90.96pcf |
| WET DENSITY | γ_w | 105.69pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.49 cm |
| SPECIMEN HEIGHT | H_o | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE

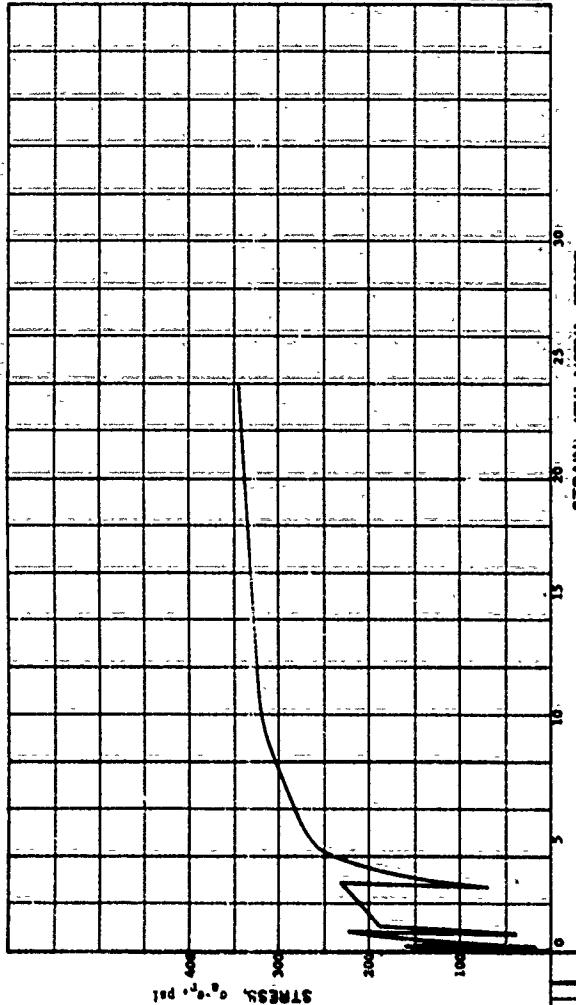


241

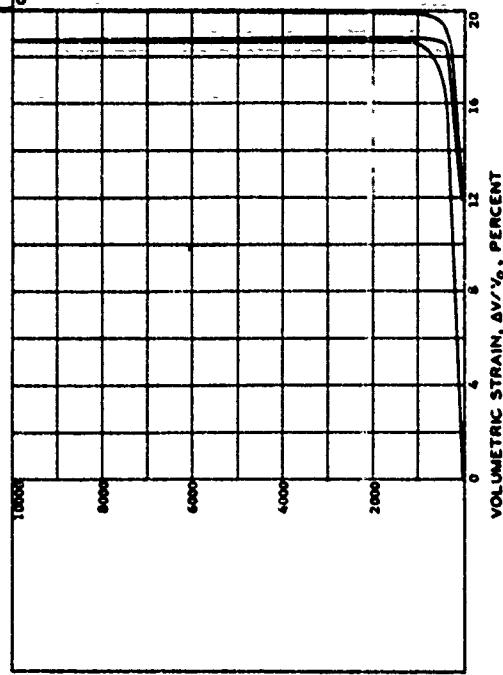
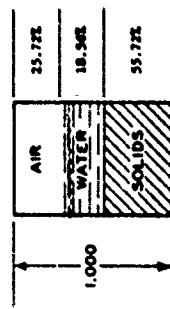
| PROJECT: Georgia Institute of Technology S-402 | |
|--|-----------------|
| Contract No.: DACA39-67-C-0051 | |
| AREA | SAMPLE NO.: 291 |
| BORING NO. | |
| DEPTH | DATE |
| EL. | |
| LL. | PL. |
| 16 | 17 |
| | PL. |
| | 19 |

DESCRIPTION: Watchless Soil Cell
Triaxial Cycle Compression, Cyclic Shear @ 3% and 15%.

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.3% |
| VOID RATIO | e_0 | 0.779 |
| SATURATION | S_o | 41.91 % |
| DRY DENSITY | γ_d | 93.87pcf |
| WET DENSITY | γ | 105.45pcf |
| SPECIFIC GRAVITY | G_s | 2.76 |
| SPECIMEN DIAMETER | D_o | 3.47 cm |
| SPECIMEN HEIGHT | H_o | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

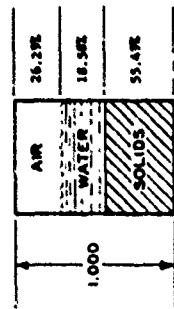
242

| | |
|--|-------------------------------|
| PROJECT: Georgia Institute of Technology B-602 | Core Set No.: 19619-67-C-0051 |
| AREA: | |
| BORE NO. | SAMPLE NO.: 351 |
| DEPTH: | DATE: |
| EL. | |
| L.L. | P1: 17 |
| | P2: 19 |
| DESCRIPTION: Marching Hill Clay | |
| Triaxial Compression Cycle Shear @ 35% and 75% | |

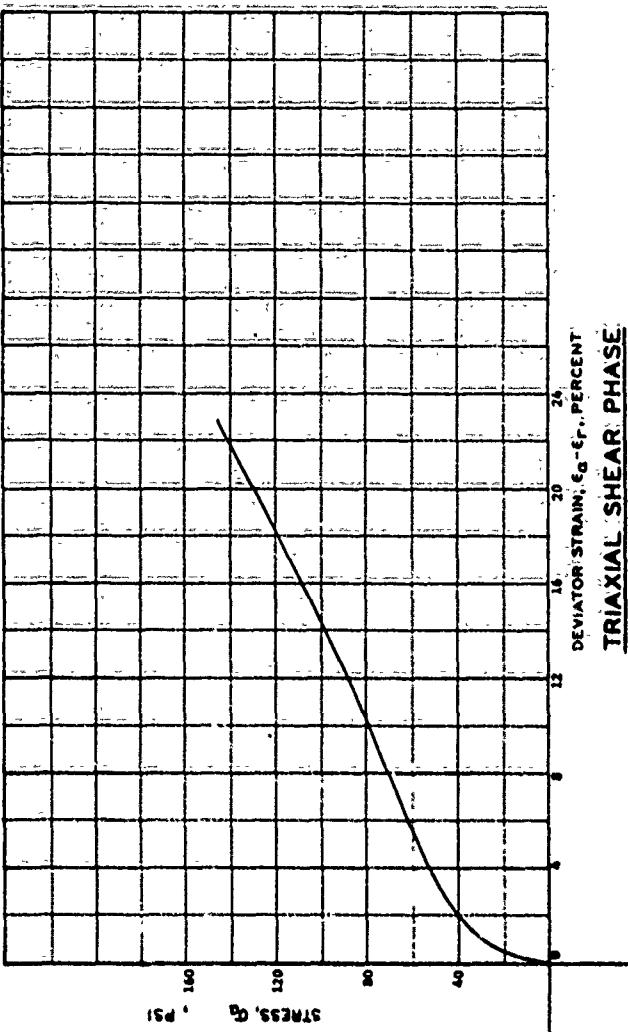
Group C

Constant Ratio Tests

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.40 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S _s | 41.74 | % |
| DRY DENSITY | γ_d | 93.50 | pcf |
| WET DENSITY | γ_w | 105.09 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE



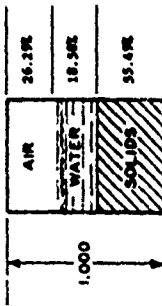
TRIAXIAL SHEAR PHASE

| | | | |
|-------------------------------|---|----|----|
| PROJECT | Georgia Institute of Technology - S-402 | | |
| Contract No. EMCAS9-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | | | |
| DEPTH EL. | | | |
| LL | PL | PT | 19 |
| DESCRIPTION | | | |
| Machining Hall Clay | | | |
| Constant Stress Ratio, 0.4 | | | |
| Initial Pressure, 0 psi | | | |

HYDROSTATIC PRESSURE, p, psi

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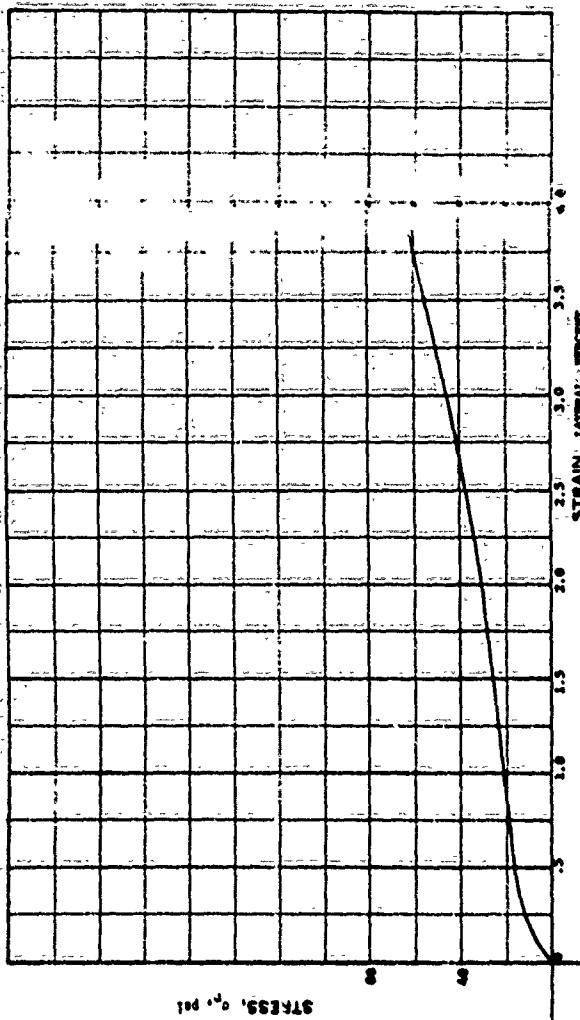
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.40 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S _s | 41.76 | % |
| DRY DENSITY | D _d | 55.50 | pcf |
| WET DENSITY | γ | 105.99 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.53 | cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

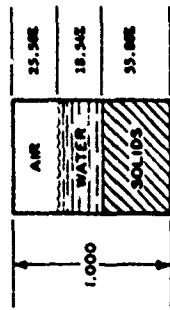
246



| | | | |
|---------------------------------|--|-----|----------------|
| PROJECT | Georgia Institute of Technology, B-616 | | |
| Contract No.: MASS-67-C-0031 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | 164 | |
| DEPTH | DATE | | |
| EL. | | | |
| LL | PL | 17 | P _c |
| | | | 19 |
| DESCRIPTION: Moultrie Hill Clay | | | |
| Content: Strength Ratio, 0.6 | | | |
| Initial pressure, 0 psi | | | |

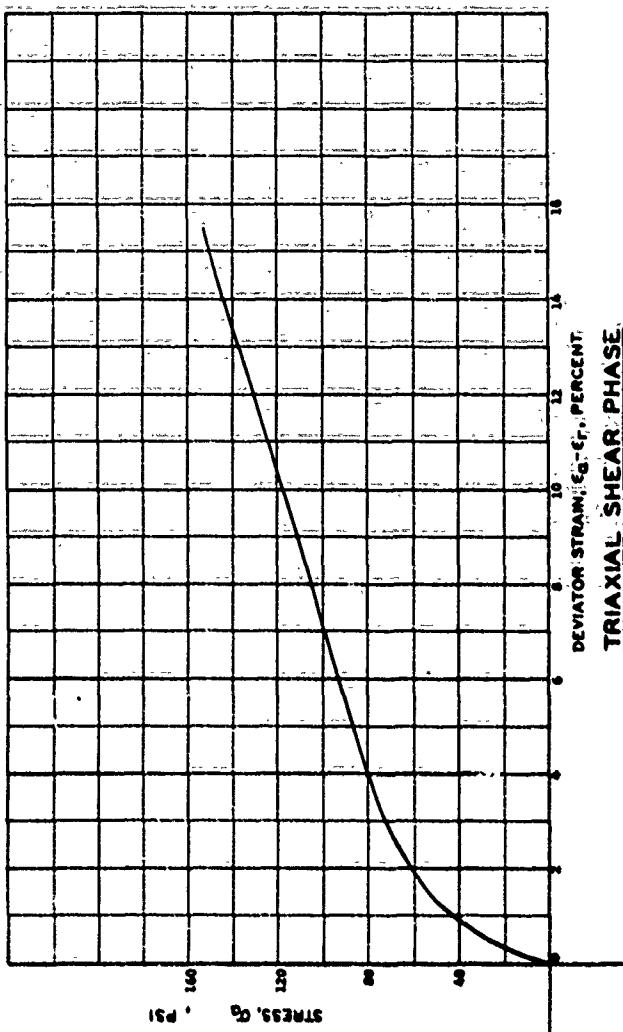
VOLUMETRIC STRAIN, AV/V₀, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.29 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | s ₀ | 42.62 % |
| DRY DENSITY | γ_d | 96.16pcf |
| WET DENSITY | γ_w | 105.71pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D _s | 3.49 cm |
| SPECIMEN HEIGHT | H _s | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

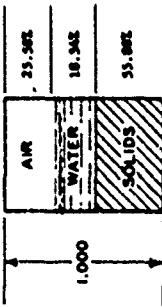


TRIAXIAL SHEAR PHASE

| | | | |
|----------------------------------|-------------------------------------|----|--------|
| PROJECT | Geode Institute of Technology I-602 | | |
| Contract No. | ASCE 35-97-C-0051 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 265 | | |
| DEPTH EL | DATE | | |
| LL | PL | 17 | PT. 19 |
| DESCRIPTION: Saturated Eut. Clay | | | |
| Compressive Strength Ratio: 0.4 | | | |
| Initial Pressure: 0 psi | | | |

VOLUMETRIC STRAIN, δ_v - ϵ_v , PERCENT

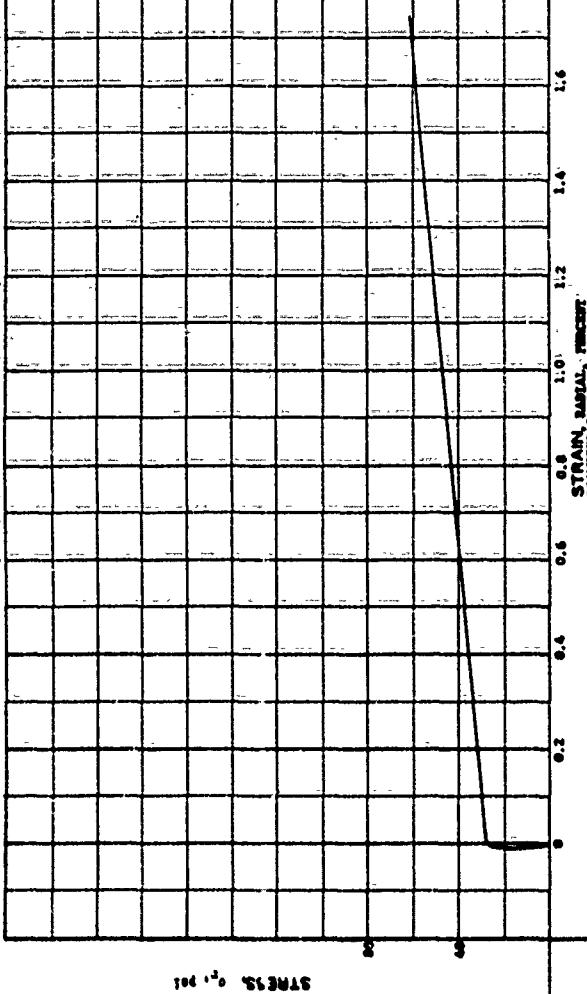
| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 12.29 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_g | 42.82 % |
| DRY DENSITY | γ_d | 94.16 PCF |
| WET DENSITY | γ | 165.71 PCF |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_0 | 3.69 CM |
| SPECIMEN HEIGHT | H_0 | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE

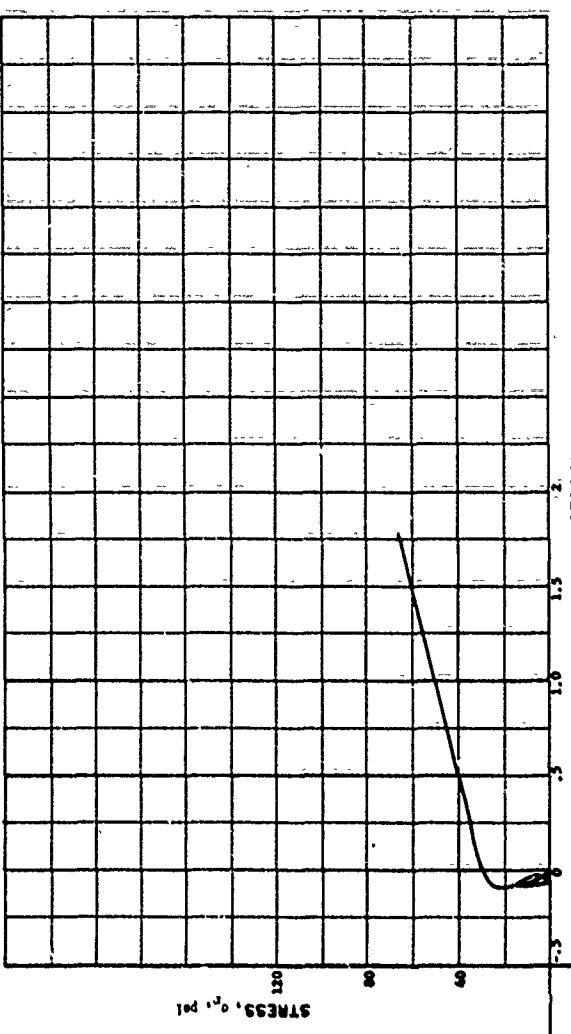
HYDROSTATIC PRESSURE, P, PSI

245

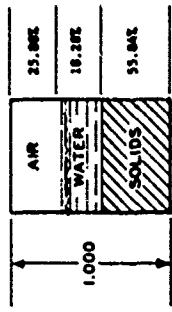


| | | |
|---------------------------------------|---------------------------------------|-----|
| PROJECT | Georgia Institute of Technology B-602 | |
| Contract No.: DASL9-67-4-0051 | | |
| AREA | | |
| BORING NO. | SAMPLE NO.: 265 | |
| DEPTH | DATE | |
| EL | | |
| 1.0 | 36 | PL |
| | 17 | Pr. |
| | | 19 |
| DESCRIPTION: <u>Bottom 5 ft. clay</u> | | |
| <u>Contract strain ratio, 0.6</u> | | |
| <u>Initial pressure, 0 psi</u> | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | |
|-------------------|----------|------------|
| WATER CONTENT | W | 12.12 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_0 | 41.39 % |
| DRY DENSITY | D_0 | 94.06 PCF |
| WET DENSITY | γ | 105.48 PCF |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_0 | 3.49 CM |
| SPECIMEN HEIGHT | H_0 | 7.61 CM |



HYDROSTATIC COMPRESSION PHASE

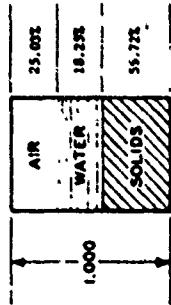
HYDROSTATIC PRESSURE, P, PSI

249

| | | | |
|---|---------------------------------|----|----|
| PROJECT: | Georgia Institute of Technology | | |
| Contract No.: DACA39-67-C-0031 | | | |
| AREA: | | | |
| BORING NO. | SAMPLE NO. 276 | | |
| DEPTH | DATE | | |
| EL | LL | FL | PT |
| 26 | 17 | | 19 |
| DESCRIPTION: Watchless Hill Clay | | | |
| Constant Stress Ratio, Q_L : Initial Pressure = 0.501 | | | |
| Cycle Shear @ 35% | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

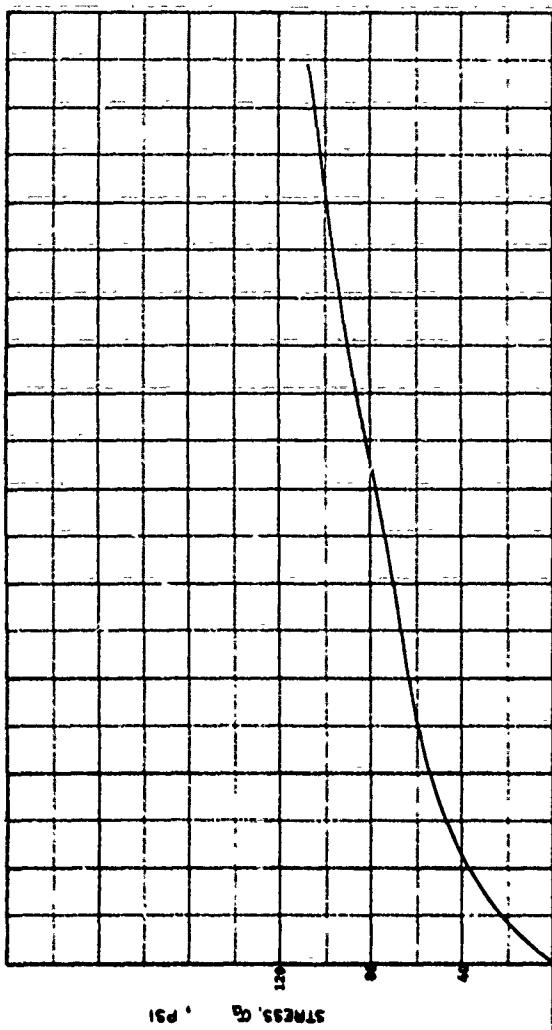
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 11.92 % |
| VOID RATIO | e ₀ | 0.76 |
| SATURATION | S ₀ | 42.18 % |
| DRY DENSITY | γ _d | 95.56 PCF |
| WET DENSITY | γ _w | 106.93 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 1.46 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, psi

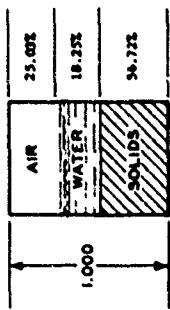
250



| | |
|---------------------------------|--|
| PROJECT | Georgia Institute of Technology, L-602 |
| Contract No. | DAAG39-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 279 |
| DEPTH | DATE |
| EL. | |
| LL | PL 17 |
| | P ₁ 19 |
| DESCRIPTION: Watchung Hill Clay | |
| Compress. Stiff., Ratio, 0.4 | |
| Initial Pressure, 0 psi | |

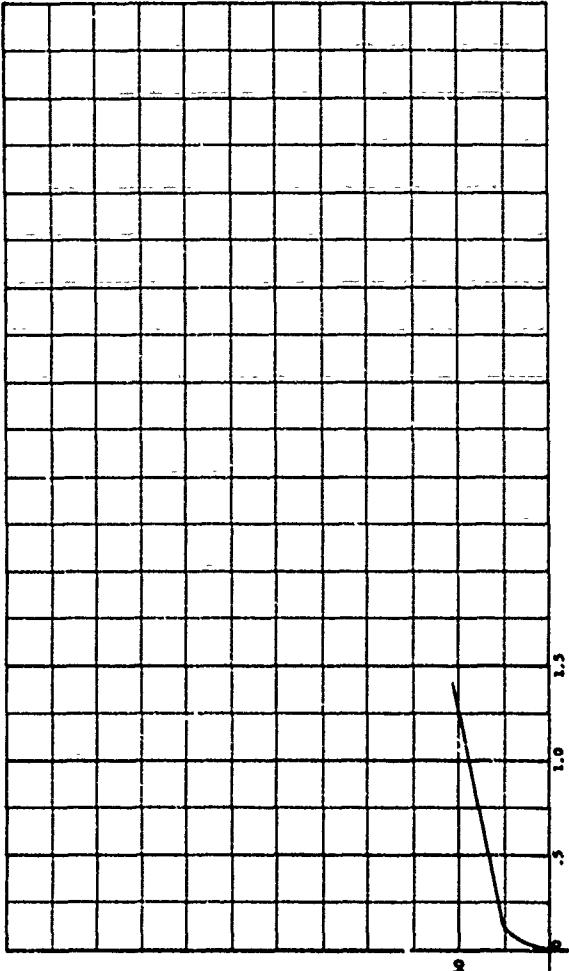
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|-------|------------|
| WATER CONTENT | W | 11.92 % |
| VOID RATIO | e_0 | 0.76 |
| SATURATION | S_o | 42.18 % |
| DRY DENSITY | D_d | 55.56 PCF |
| WET DENSITY | D_w | 108.95 PCF |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_0 | 3.44 CM |
| SPECIMEN HEIGHT | H_0 | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE

STRENGTH TEST



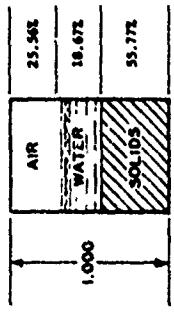
HYDROSTATIC PRESSURE, P, PSI

251

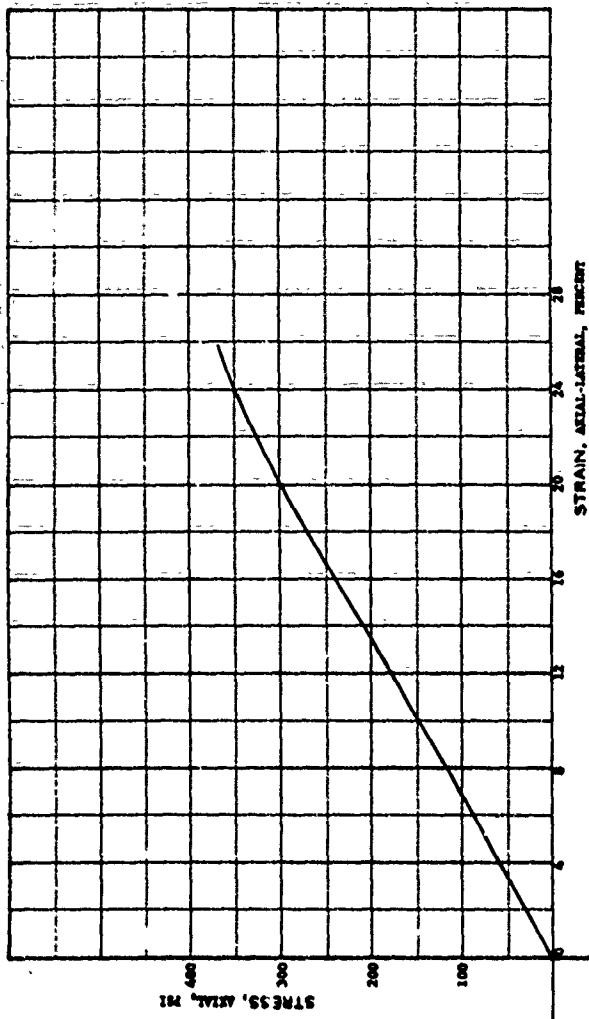
| | | | |
|----------------------------|---------------------------------------|-----|----|
| PROJECT | Georgia Institute of Technology B-602 | | |
| CALIBRATION NO. | GIL-10-0001 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | 279 | |
| DEPTH | DATE | | |
| EL. | LL | PL | P1 |
| DESCRIPTION | | | |
| Constant Stress Ratio, 0.4 | | | |
| Initial Pressure, 0 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|------------------|------------|------------|
| WATER CONTENT | w | 12.40 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_o | 42.21 % |
| DRY DENSITY | γ_d | 59.96pcf |
| WET DENSITY | γ | 109.61 pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P , psi

252

| | |
|--------------|-----------------|
| PROJECT | Soil Test A-002 |
| Contract No. | MCASB-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 200 |
| DEPTH | DATE |
| EL. | |
| L.L. | PL. 17. PL. 19. |

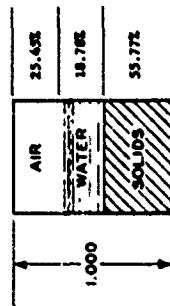
DESCRIPTION Soil sample, 3 in. dia.

Constant Stress Ratio, 0.4

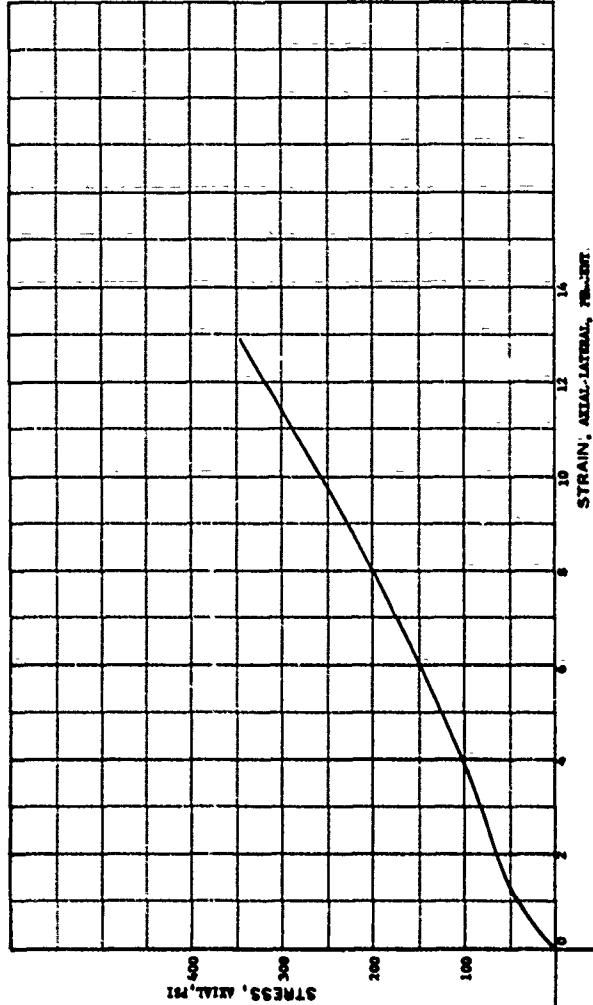
Total Pressure, 100 psi

VOLUMETRIC STRAIN, A_v/V_0 , PERCENT

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.48 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_o | 42.47 % |
| DRY DENSITY | γ_d | 93.96pcf |
| WET DENSITY | γ | 105.48pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| CYLINDER DIAMETER | D_o | 3.45 cm |
| SPECIMEN HEIGHT | H_o | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

253

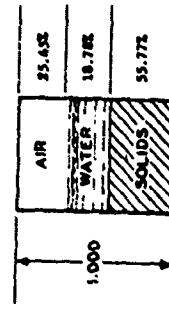
| | | |
|--------------------------------|--------------------------------------|------|
| PROJECT: <u>On Tech B-600;</u> | CONTRACT NO. <u>DA-35-947-C-0051</u> | |
| AREA | | |
| BORING NO. | SAMPLE NO. <u>207</u> | DATE |
| DEPTH EL. | | |
| L.L. | PL | P1 |
| 16 | 17 | 19 |

DESCRIPTION: Medium, silty clay

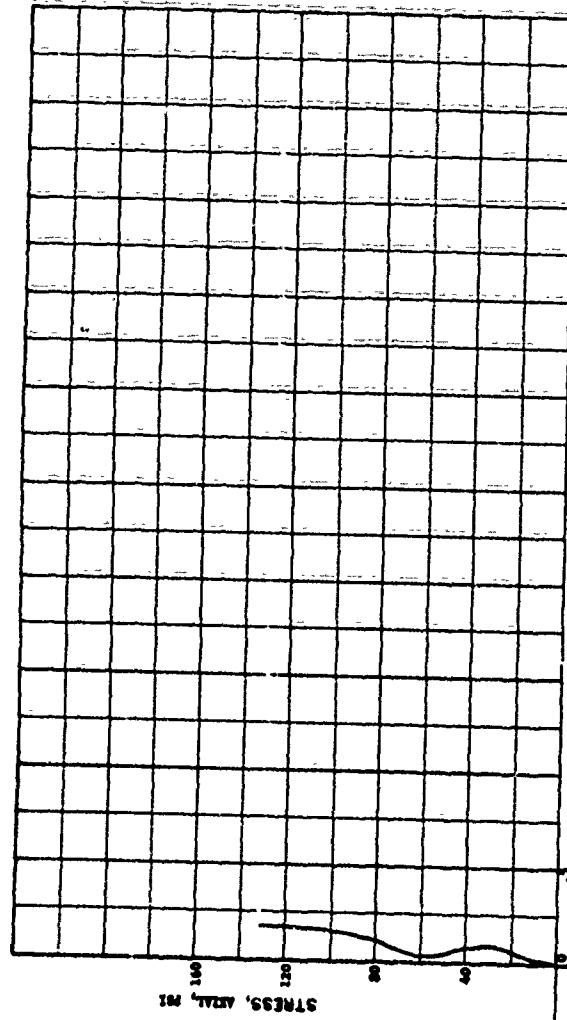
Compressive Strength Ratio, 0.4

Initial Frequency, 100 cps

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.46 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S ₀ | 42.47 % |
| DRY DENSITY | D ₀ | 59.56 PCF |
| WET DENSITY | γ | 105.48 PCF |
| SPECIFIC GRAVITY | G _g | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE



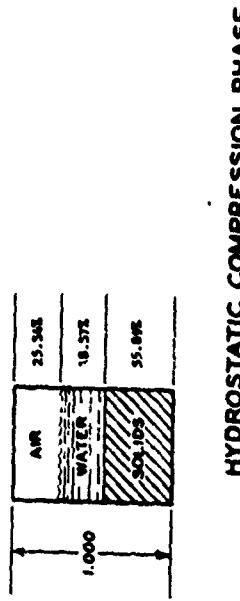
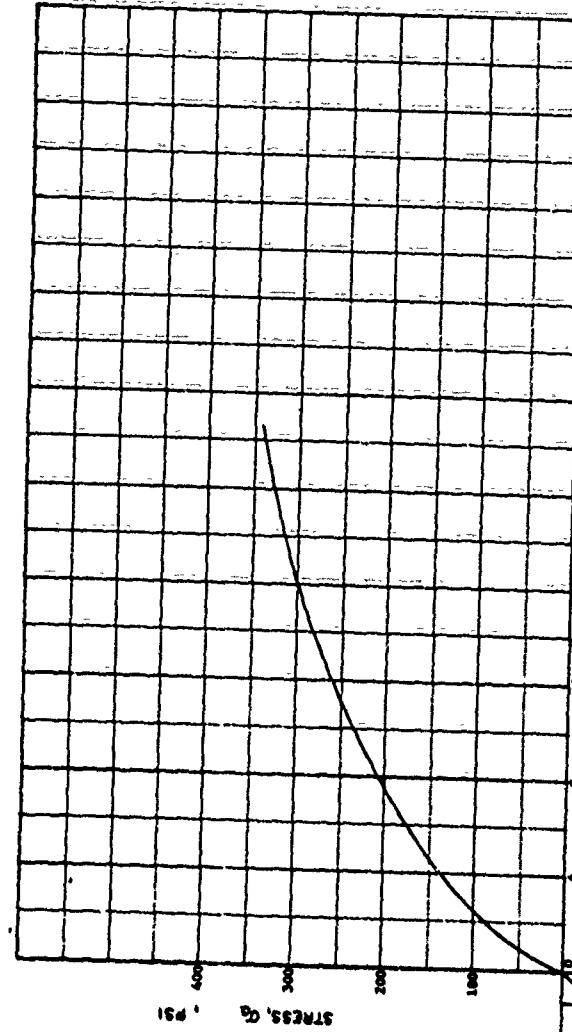
HYDROSTATIC PRESSURE, P, PSI

254

| | |
|-------------------------------|----------------|
| PROJECT | Ge Tech B-02; |
| CoreSite No. MCASB-61-C-0011; | |
| AREA | |
| BORING NO. | SAMPLE NO. 207 |
| DEPTH EL | DATE |
| LL 36 | P.L. 27 |
| | P1 19 |
| DESCRIPTION Weatherill Clay | |
| Constant Strain Rate 0.4 | |
| Initial Pressure, 100 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

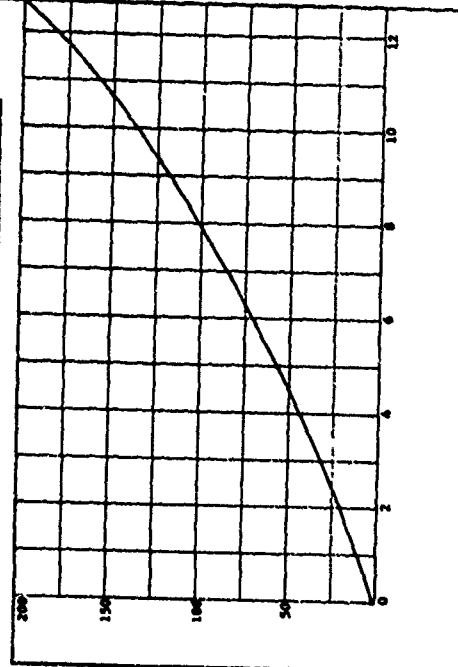
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.31 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S _o | 42.89 | % |
| DRY DENSITY | γ_d | 94.15 | pcf |
| WET DENSITY | γ_w | 165.76 | pcf |
| SPECIFIC GRAVITY | G _w | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.48 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |



HYDROSTATIC PRESSURE, P, kg/cm²

255

TRIAXIAL SHEAR PHASE



VOLUMETRIC STRAIN, AV/V₀, PERCENT

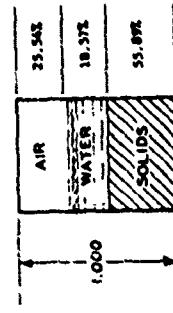
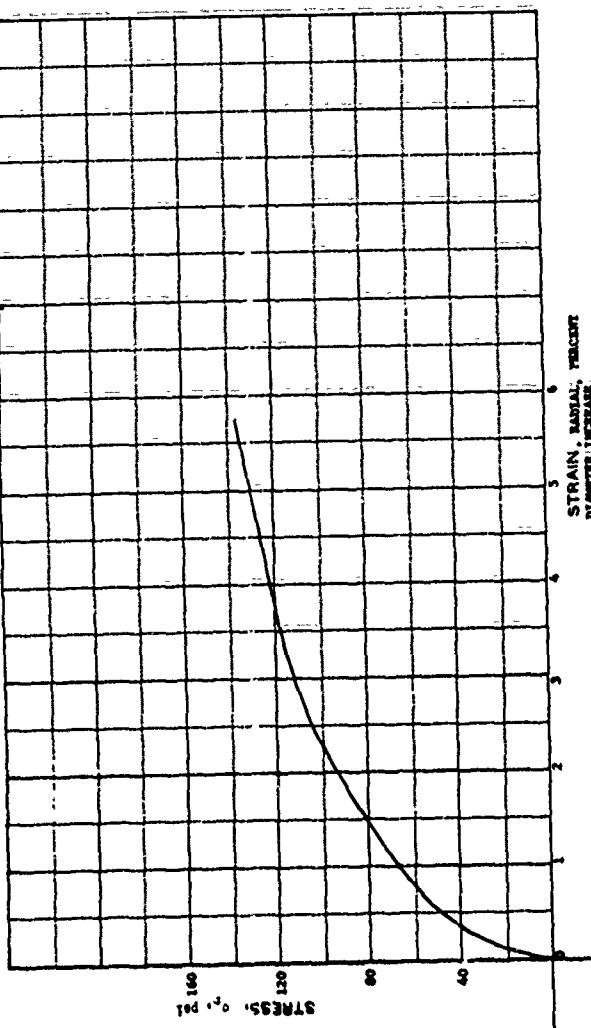
| | | | |
|------------------------------|---------------------------------------|----|----|
| PROJECT | General Electric Oil Technology R-602 | | |
| Contract No. RAC19-67-G-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 237 | | |
| DEPTH EL. | DATE | | |
| LL | 36 | PL | 17 |
| | | P1 | 19 |

DESCRIPTION *Weathered Bell Clay*

Confined Stress Ratio, Q = 1.0

Initial Pressure, 200 psi

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.31 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S _o | 42.69 % |
| DRY DENSITY | D _d | 98.15 PCF |
| WET DENSITY | D _w | 105.76 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.48 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE

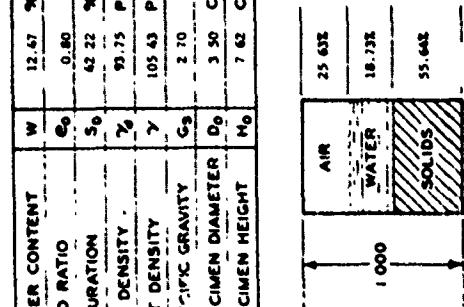
HYDROSTATIC PRESSURE, P, PSI

256

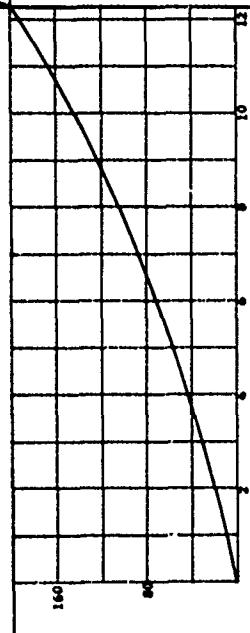
| | | |
|-------------------------------|---------------------------------------|----|
| PROJECT | Georgia Institute of Technology B-402 | |
| Contract No. DACA19-67-C-0031 | | |
| AREA | SAMPLE NO. 237 | |
| BORING NO. | DATE | |
| DEPTH EL | PL | P1 |
| LL | 17 | 19 |
| DESCRIPTION | Hatching Hill Clay | |
| Constant Stress Ratio, 0.4 | | |
| Initial Pressure, 200 psi | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|----------------------------------|----------------|------------|
| WATER CONTENT | W | 12.67 % |
| VOID RATIO | e ₀ | 0.60 |
| SATURATION | S ₀ | 42.22 % |
| DRY DENSITY | - | 76.935 PCF |
| WET DENSITY | γ | 105.63 PCF |
| SPECIMEN GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER D ₀ | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT H ₀ | H ₀ | 7.62 CM |

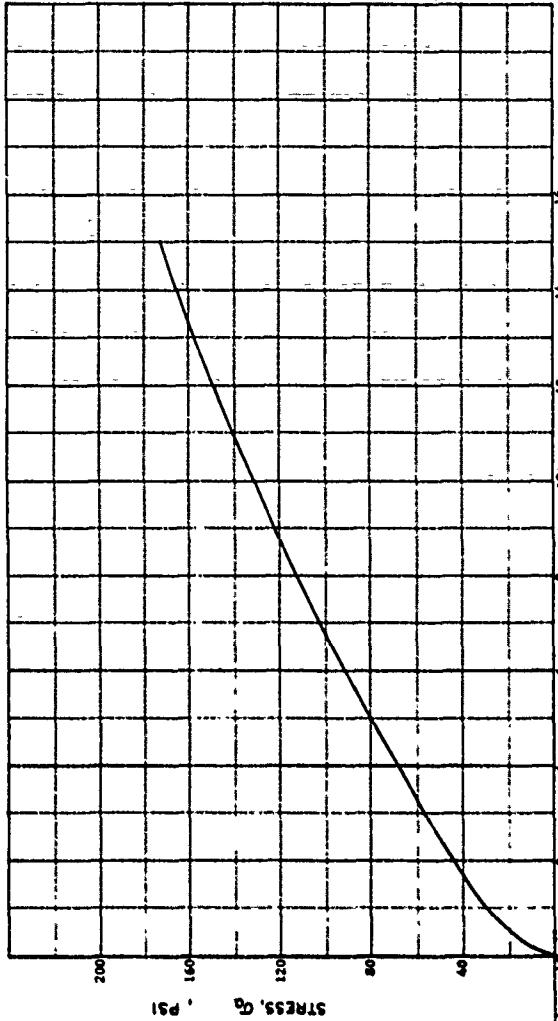


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, p, PSI

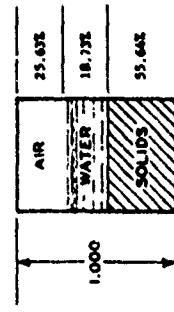
257



DEVIATOR STRAIN: $\epsilon_d - \epsilon_r$, PERCENT
TRIAXIAL SHEAR PHASE

| | | |
|---|------------|----------|
| PROJECT Georgia Institute of Technology B-402 | | |
| Core Set No. DEC159-67-C-0051 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. | 238 |
| DEPTH | DATE | — |
| EL. | — | — |
| LL | PL | 17 PL 19 |
| DESCRIPTION Weathered Mill Clay | | |
| Constant Stress Ratio, 0.4 | | |
| Initial Pressure 200 PSI | | |

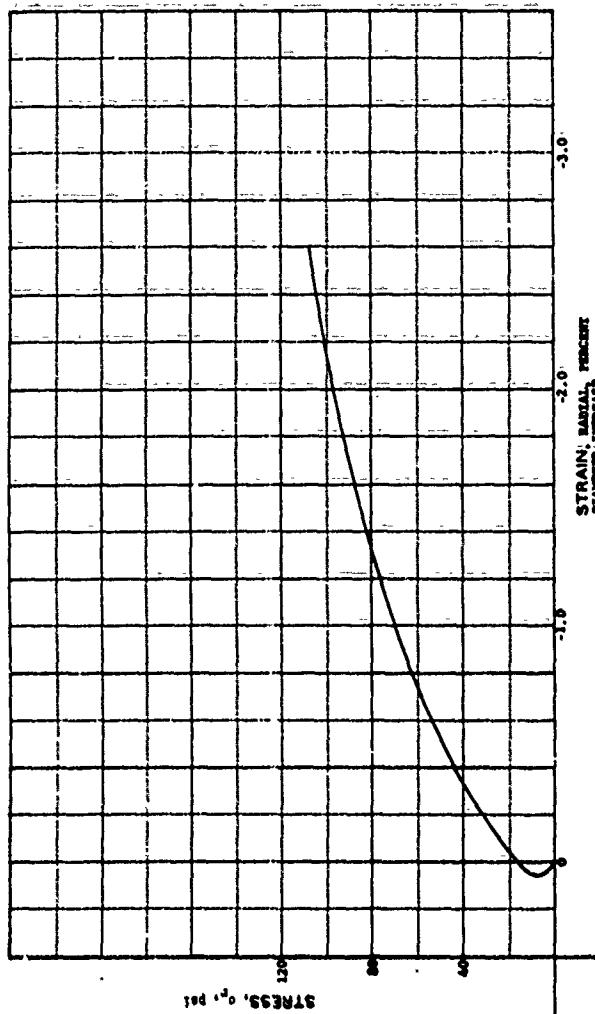
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.47 | % |
| VOID RATIO | e_0 | 0.80 | |
| SATURATION | S_o | 42.22 | % |
| DRY DENSITY | γ_d | 93.75 | pcf |
| WET DENSITY | γ_w | 105.49 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.62 | cm |



HYDROSTATIC COMPRESSION PHASE

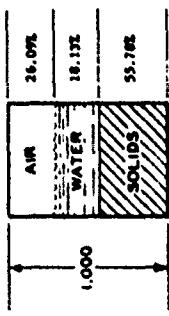
HYDROSTATIC PRESSURE, P , PSI

258

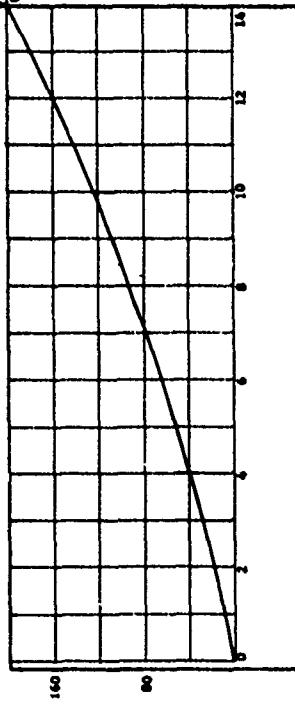


| | | | |
|----------------------------------|--|----|----|
| PROJECT | Georgia Institute of Technology - B-62 | | |
| Contract No. DACA19-67-C-0021 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 238 | | |
| DEPTH | DATE | | |
| EL. | PL | 17 | PI |
| LL | 36 | | 19 |
| DESCRIPTION: Weathered Hill Clay | | | |
| Constant Stress Ratio, 0.4 | | | |
| Initial Pressure 200 psi | | | |

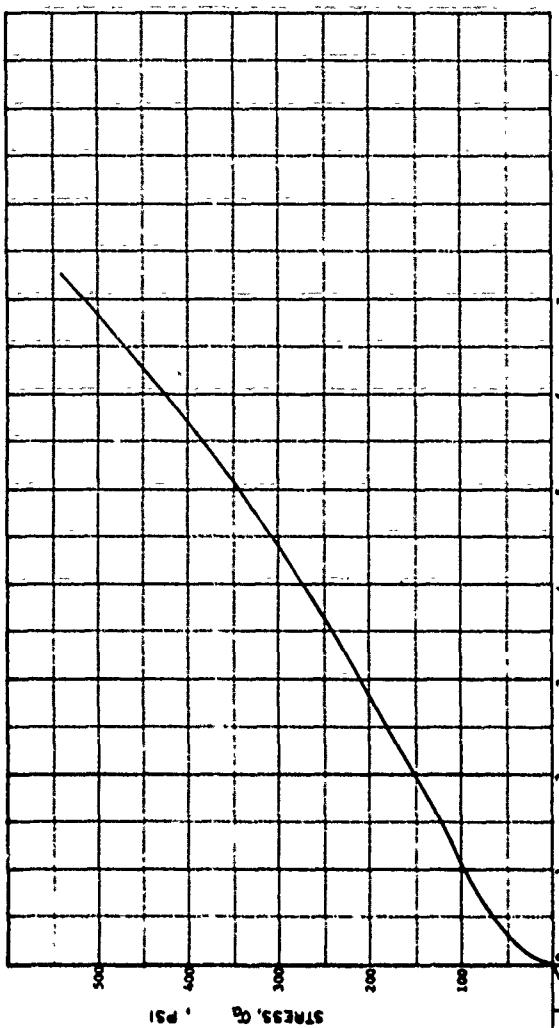
| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.04 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_0 | 41.00 % |
| DRY DENSITY | γ_d | 23.98pcf |
| WET DENSITY | γ | 105.29pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| APERTURE DIAMETER | D_0 | 3.49 cm |
| SPECIMEN HEIGHT | H_0 | 7.63 cm |



HYDROSTATIC COMPRESSION PHASE



VOLUME STRAIN, $\Delta V/V_0$, PERCENT



TRIAXIAL SHEAR PHASE

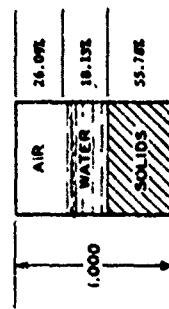
| | | |
|--------------|--|----|
| PROJECT | Georgia Institute of Technology, B-602 | |
| Contract No. | DACA39-67-C-0051 | |
| AREA | | |
| BORING NO. | SAMPLE NO. 239 | |
| DEPTH | DATE | |
| EL | | |
| LL | PL | P1 |
| | 17 | 19 |

DESCRIPTION: Watch Hill Clay

Constant Stress Ratio, 0.4

Initial Pressure, 200 psi

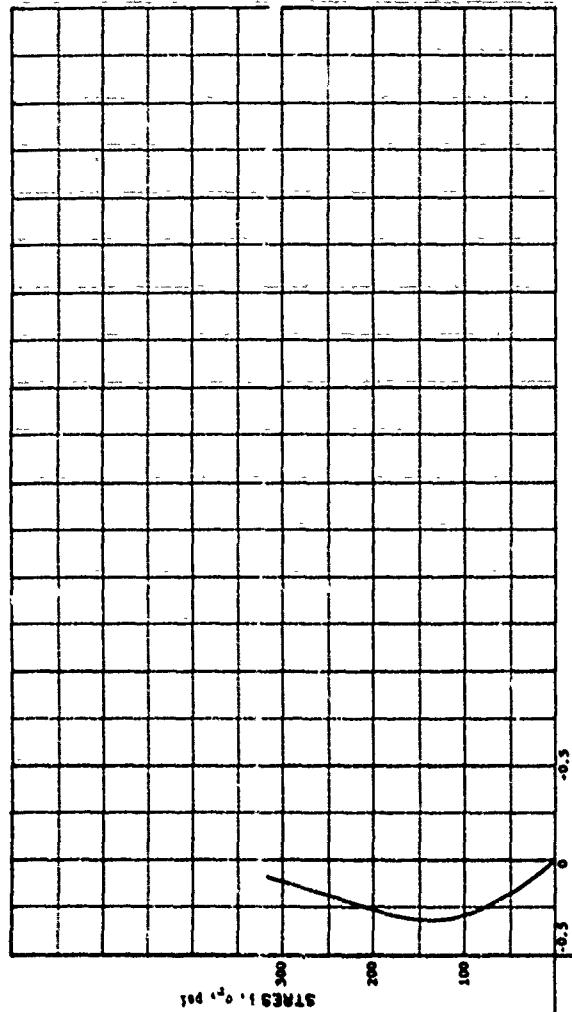
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.04 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S _o | 51.00 | % |
| DRY DENSITY | γ_d | 93.98 | pcf |
| WET DENSITY | γ | 105.29 | pcf |
| SPECIFIC GRAVITY | G _s | 2.10 | |
| SPECIMEN DIAMETER | D _o | 3.46 | cm |
| SPECIMEN HEIGHT | H _o | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

260



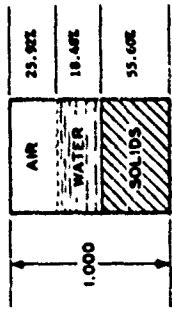
STRAIN, $\Delta V/V_0$, PERCENT
DIAMETER INCHES

| | |
|--------------|--|
| PROJECT | Georgia Institute of Technology, B-502 |
| Contract No. | DAC39-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 239 |
| DEPTH | DATE |
| EL | |
| LL | PL 17 PI 19 |

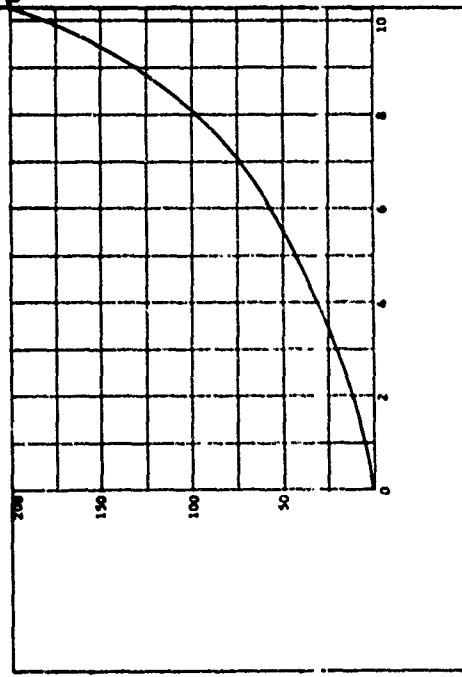
DESCRIPTION: Witching Hill Clay
Constant stress Ratio, 0.4
Initial Pressure, 200 psi

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.31 % |
| VOID RATIO | e ₀ | 0.96 |
| SATURATION | S ₀ | 41.61 % |
| DRY DENSITY | γ_d | 93.68pcf |
| WET DENSITY | γ' | 103.21pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.69 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |

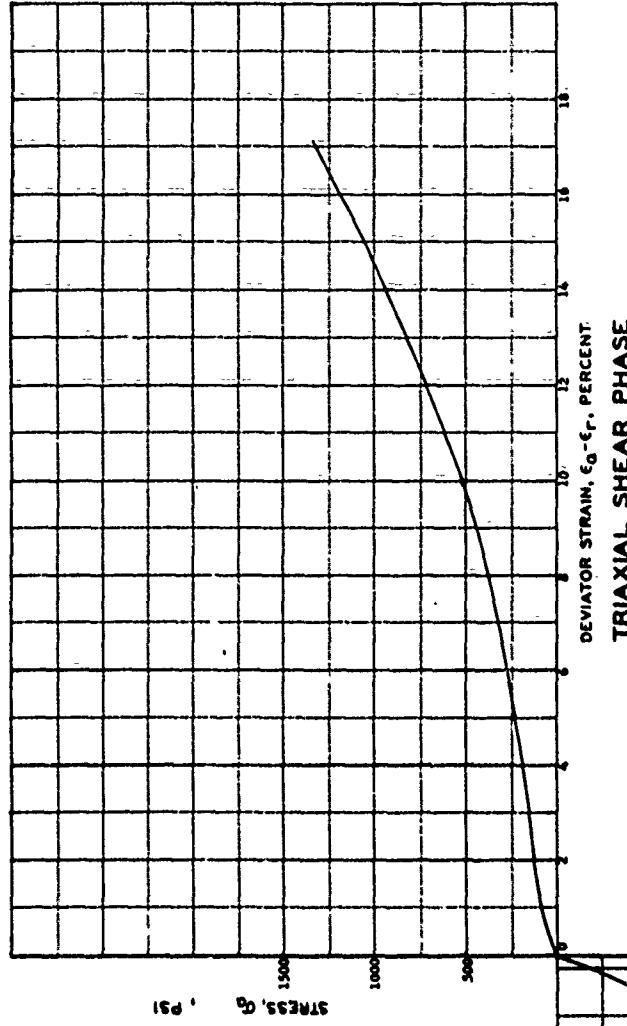


HYDROSTATIC COMPRESSION PHASE



16

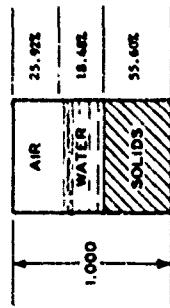
HYDROSTATIC PRESSURE, P, PSI



TRIAXIAL SHEAR PHASE

| | |
|--------------------------------------|--|
| PROJECT | Georgia Institute of Technology, A-602 |
| Contract No. | DMO39-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 255 |
| DEPTH | DATE |
| EL. | |
| LL | PL 17 PI 19 |
| DESCRIPTION <u>Wachapreague Clay</u> | |
| Constant Stress Ratio, 0.4 | |
| Initial Pressure, 200 psi | |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.31 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S ₀ | 41.61 % |
| DRY DENSITY | γ_d | 91.68pcf |
| WET DENSITY | γ_w | 105.21pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |



HYDROSTATIC COMPRESSION PHASE

STRESS, σ , psi

-3.5
-3.0
-2.5
-2.0
-1.5
-1.0
-0.5
0

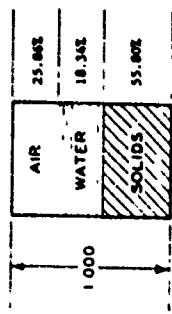
STRAIN, RADIAL, PERCENT
SOLID SURFACE

HYDROSTATIC PRESSURE, P , psi

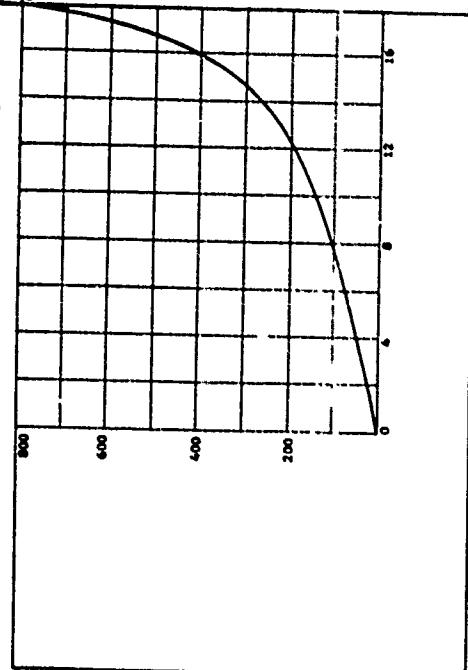
262

| | | | |
|---------------------------------------|---------------------------------------|----|-------|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. DACA09-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 235 | | |
| DEPTH | DATE | | |
| EL. | PL | 17 | PT 19 |
| DESCRIPTION <u>Watching Mill Clay</u> | | | |
| Constant Stress Ratio, 0.4 | | | |
| Initial Pressure, 200 psi | | | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.17 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S ₀ | 61.50 | % |
| DRY DENSITY | γ _d | 94.01 | pcf |
| WET DENSITY | γ _w | 105.45 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |

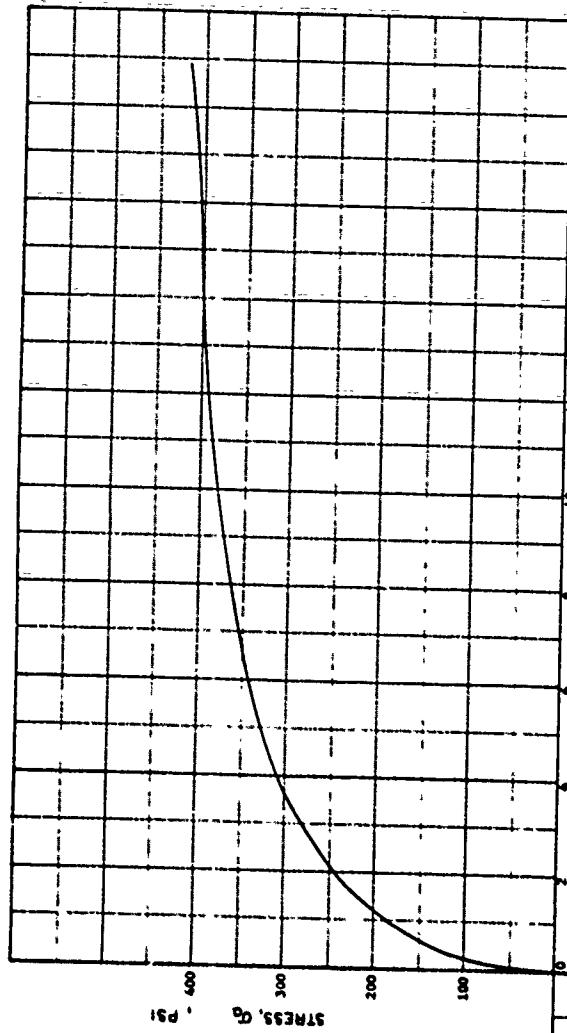


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P , PSI

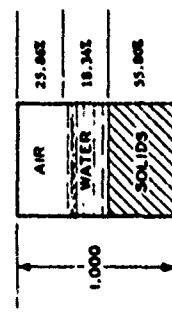
26.3



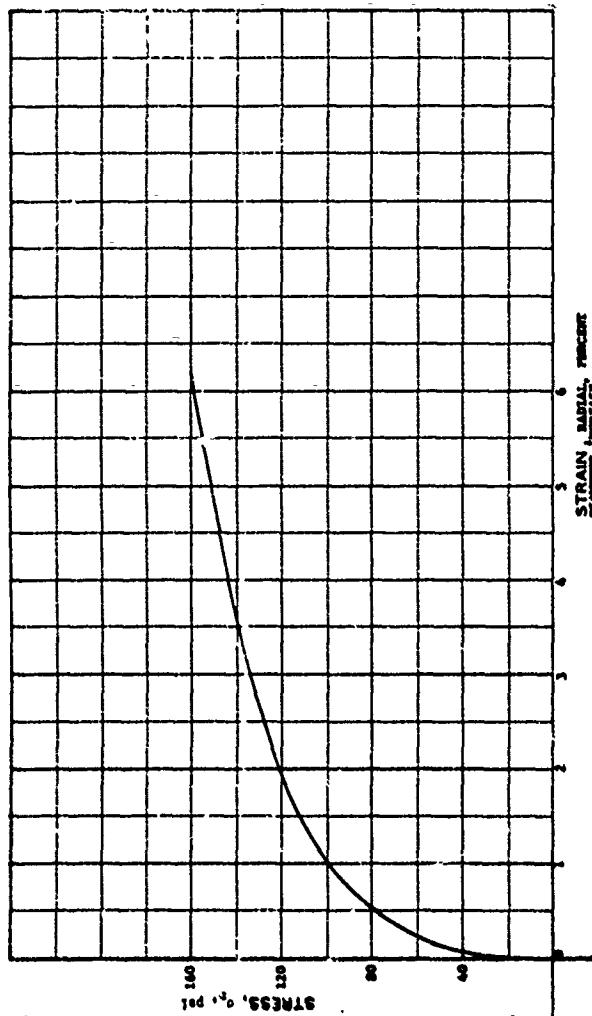
TRIAXIAL SHEAR PHASE

| | |
|--------------------------------|---------------------------------------|
| PROJECT | Georgia Institute of Technology B-402 |
| Contract No. | DAC39-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 244 |
| DEPTH | DATE |
| EL | |
| LL | PL |
| DESCRIPTION Matching Null Clay | |
| Constant Stress Ratio, 0.4 | |
| Initial Pressure 600 psi | |

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | w | 12.17 | % |
| VOID RATIO | e_0 | 0.79 | |
| SATURATION | S_o | 41.50 | % |
| DRY DENSITY | γ_d | 96.01 | pcf |
| WET DENSITY | γ' | 105.45 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.49 | cm |
| SPECIMEN HEIGHT | H_o | 7.62 | cm |



HYDROSTATIC COMPRESSION PHASE



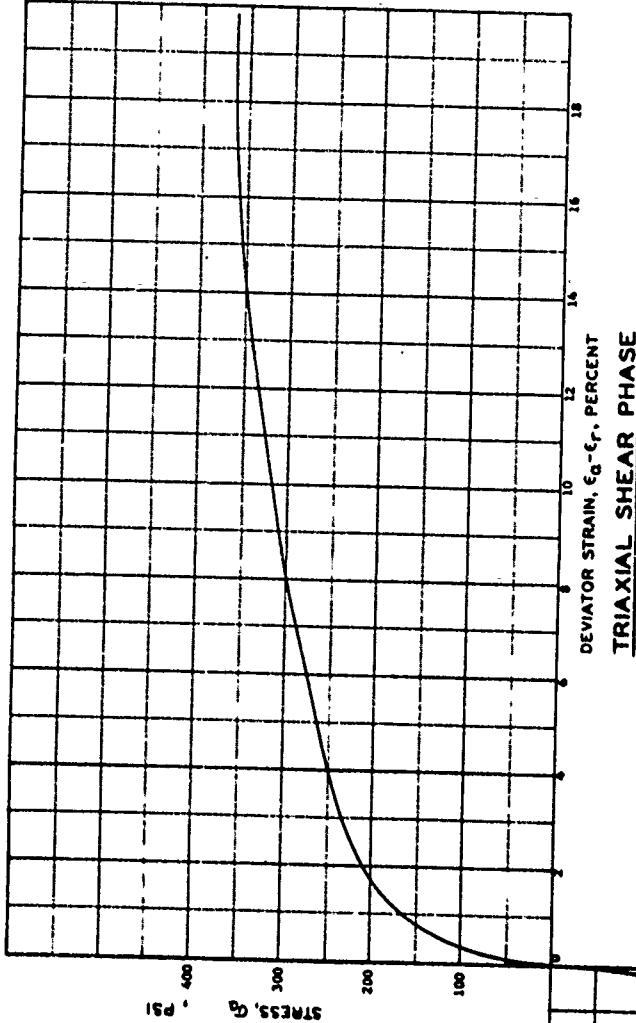
HYDROSTATIC PRESSURE, psi, PSI

264

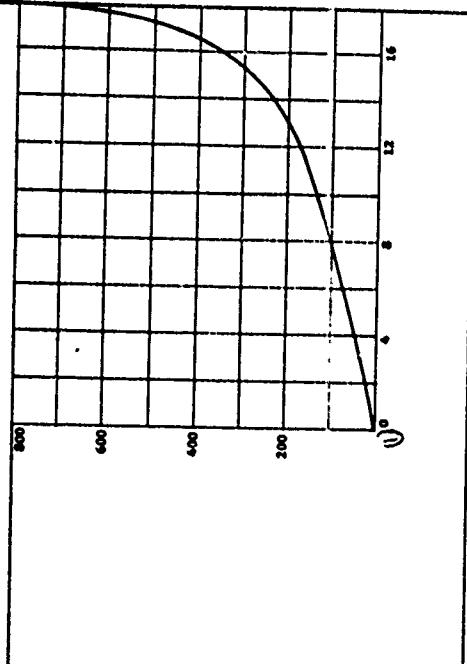
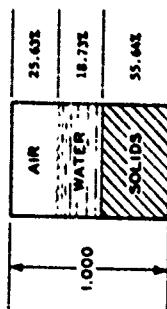
| | |
|---------------------------------------|----------------|
| PROJECT _____ | |
| Concrete Institute of Technology 2:02 | |
| Contract No. 50019-07-C-0001 | |
| AREA _____ | |
| SPRING NO. | SAMPLE NO. 244 |
| DEPTH EL. | DATE |
| L.L. 36 | PL 17 P1 19 |
| DESCRIPTION <u>Soil 111 Clay</u> | |
| Constant Stress Ratio, 0.4 | |
| Initial Pressure, 800 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|--------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.47 | % |
| VOID RATIO | e ₀ | 0.90 | |
| SATURATION | S ₀ | 42.22 | % |
| DRY DENSITY | γ_d | 93.75 | pcf |
| WET DENSITY | γ_w | 105.43 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| APPENDANT DIAMETER | D ₀ | 3.69 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE

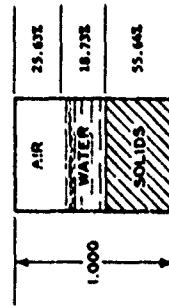


HYDROSTATIC PRESSURE, P, psi

265

| | | | |
|----------------------------------|--|------------|-----|
| PROJECT | Georgia Institute of Technology I-602, | | |
| Contract No. | DMR9-67-C-0051 | | |
| AREA | | | |
| BORING NO. | | SAMPLE NO. | 261 |
| DEPTH | | DATE | |
| EL. | | | |
| LL | 36 | PL | 17 |
| | | P1 | 19 |
| DESCRIPTION | | | |
| Matching Mill Clay | | | |
| -- Constant Stress Ratio, 0.4 .. | | | |
| Initial Pressure, 800 psi | | | |

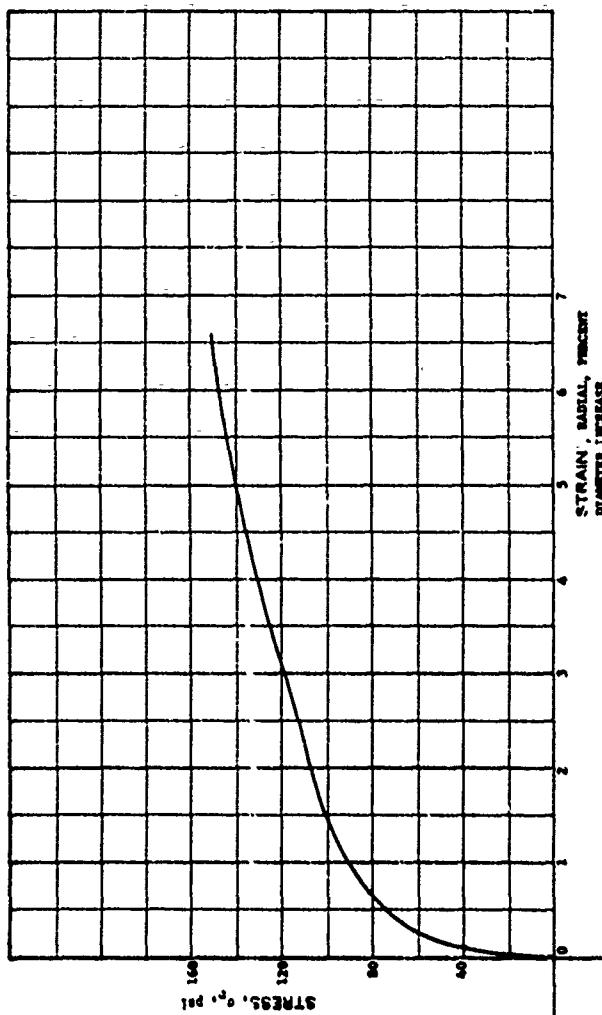
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.47 % |
| VOID RATIO | e ₀ | 0.88 |
| SATURATION | S _o | 43.22 % |
| DRY DENSITY | D _d | 93.75pcf |
| WET DENSITY | γ _w | 105.43 pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

266

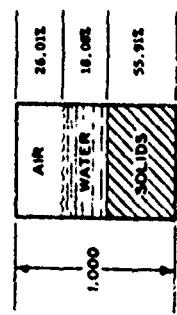


| | | | |
|-------------|--|------|-------|
| PROJECT | Georgia Institute of Technology I. 602 | | |
| | Contract No. 2003917-C-0051 | | |
| <u>AREA</u> | | | |
| BORING NO. | SAMPLE NO. 261 | DATE | |
| DEPTH EL. | PL | 17 | P1 19 |

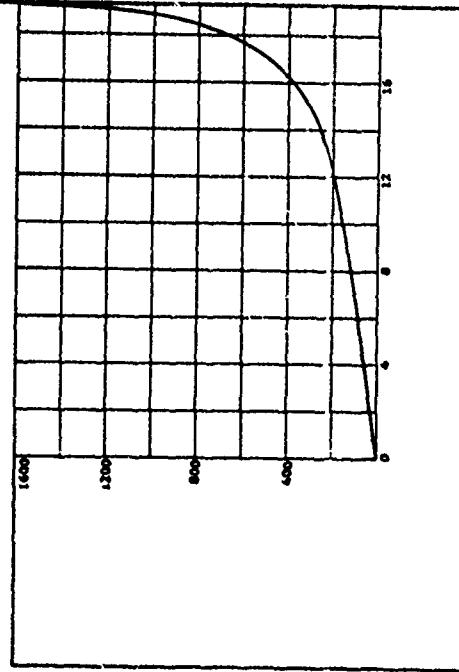
VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

Constant Stress Ratio, 0.4
Initial Pressure, 800 psi

| | | |
|--------------------------------|----------------|------------|
| WATER CONTENT | W | 11.98 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S ₀ | 41.01 % |
| DRY DENSITY | γ_d | 96.19 PCF |
| WET DENSITY | γ_w | 105.48 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| DIAMETER D ₀ | D ₀ | 3.69 CM |
| SPECIMEN HEIGHT H ₀ | H ₀ | 7.63 CM |

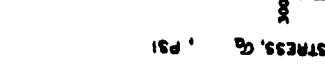


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

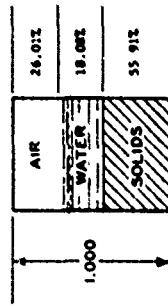
267



TRIAXIAL SHEAR PHASE

| | | | |
|----------------------------|---------------------------------------|-----|-------|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. | MACA967-C-0051 | | |
| <hr/> | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | 240 | |
| DEPTH EL | DATE | | |
| LL | PL | 17 | P1 19 |
| <hr/> | | | |
| DESCRIPTION | Watchdog Hill Clay | | |
| Constant Stress Ratio, 0.4 | | | |
| Total Pressure, 1600 psi | | | |

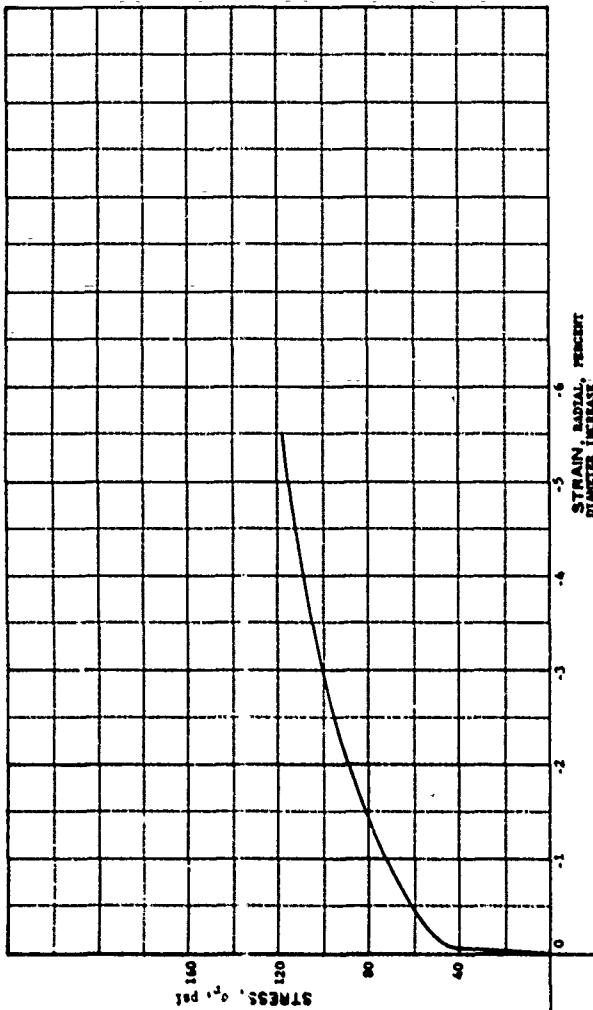
| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | w | 11.96 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | s _o | 41.01 % |
| DRY DENSITY | γ_d | 94.19pcf |
| WET DENSITY | γ_w | 105.48pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.69 cm |
| SPECIMEN HEIGHT | H ₀ | 7.43 cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

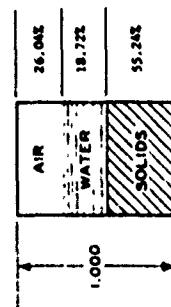
262



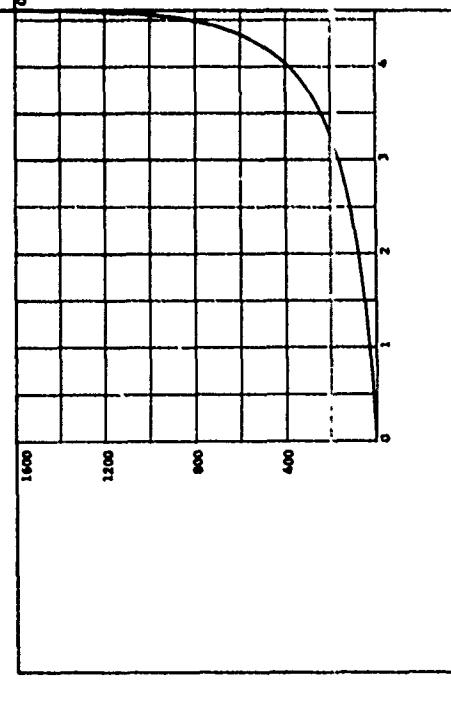
| | | | |
|----------------------------------|---------------------------------------|----|--------|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. DACA19-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO 240 | | |
| DEPTH | DATE | | |
| EL. | PL | 17 | PT. 19 |
| DESCRIPTION Weathering Ball Clay | | | |
| Comsat Stress Ratio, 0.4 | | | |
| Initial Pressure, 1600 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.56 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S _o | 41.84 % |
| DRY DENSITY | D _d | 93.06pcf |
| WET DENSITY | D _w | 104.75pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 cm |
| SPECIMEN HEIGHT | H ₀ | 7.02 cm |

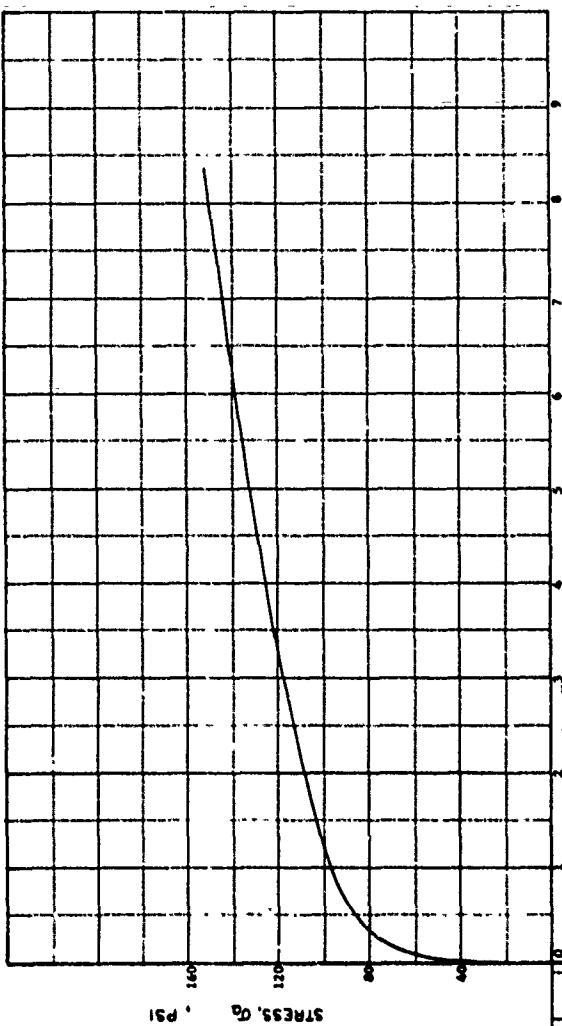


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

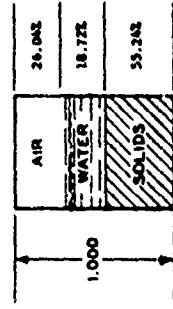
269



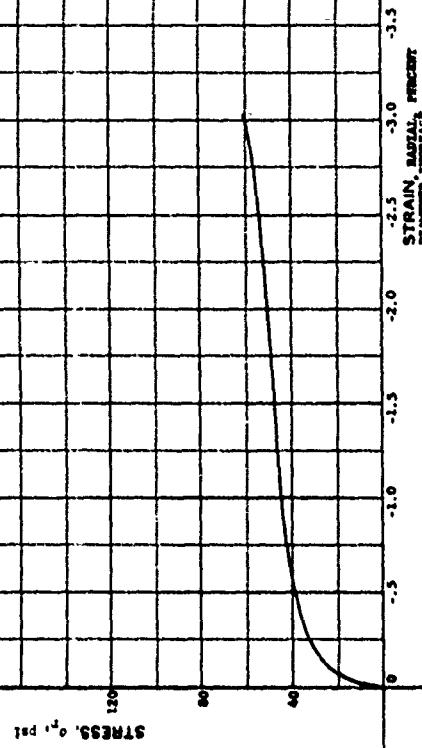
TRIAXIAL SHEAR PHASE

| | | | |
|----------------------------|---------------------------------------|----------------|----|
| PROJECT | Georgia Institute of Technology 3-602 | | |
| Contract No. | Dec 19-67-C-0091 | | |
| AREA | | | |
| BORE NO. | | SAMPLE NO. 307 | |
| DEPTH EL. | | DATE | |
| LL | 36 | PL | 17 |
| | | P1 | 19 |
| DESCRIPTION | Matching Hill Clay | | |
| Constant Stress Ratio, 0.4 | | | |
| Initial Pressure, 1600 psi | | | |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.56 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S ₀ | 41.84 % |
| DRY DENSITY | γ_d | 93.08pcf |
| WET DENSITY | γ_w | 104.75pcf |
| SPECIFIC GRAVITY | G ₀ | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE



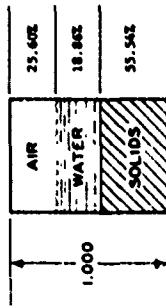
HYDROSTATIC PRESSURE, P - PSI

270

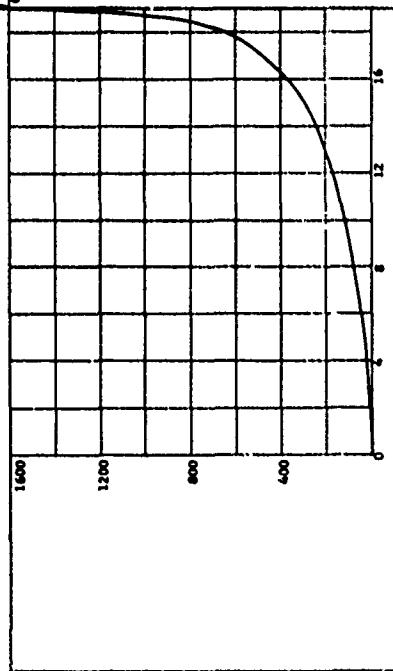
| | |
|---|-----------------------|
| PROJECT <u>Georgia Institute of Technology 1-62</u> | |
| Contract No. DAC39-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. <u>307</u> |
| DEPTH | DATE |
| EL. | |
| LL | PL |
| | 17 |
| | PI |
| | 19 |
| DESCRIPTION <u>Watching Hill Clay</u> | |
| Constant Stress Ratio, 0.4 | |
| Initial pressure, 1600 psi | |

VOLUME STRAIN, AV/V0 - PERCENT

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.57 % |
| VOID RATIO | e_0 | 0.80 |
| SATURATION | S_o | 42.41 % |
| DRY DENSITY | γ_d | 93.57pcf |
| MET. DENSITY | γ_m | 105.34pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.49 CM |
| SPECIMEN HEIGHT | H_o | 7.02 CM |

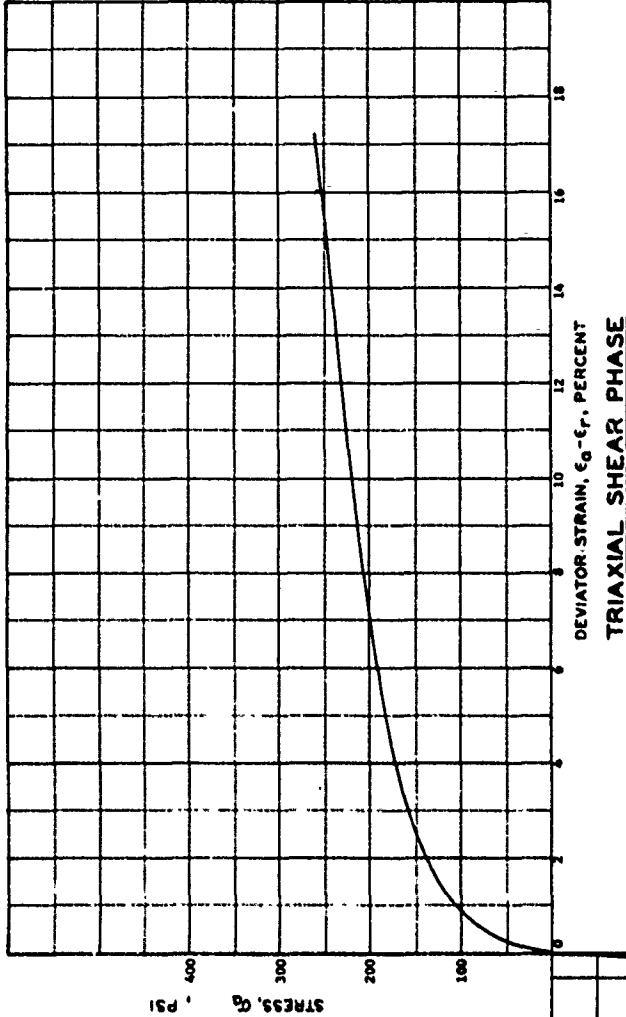


HYDROSTATIC COMPRESSION PHASE



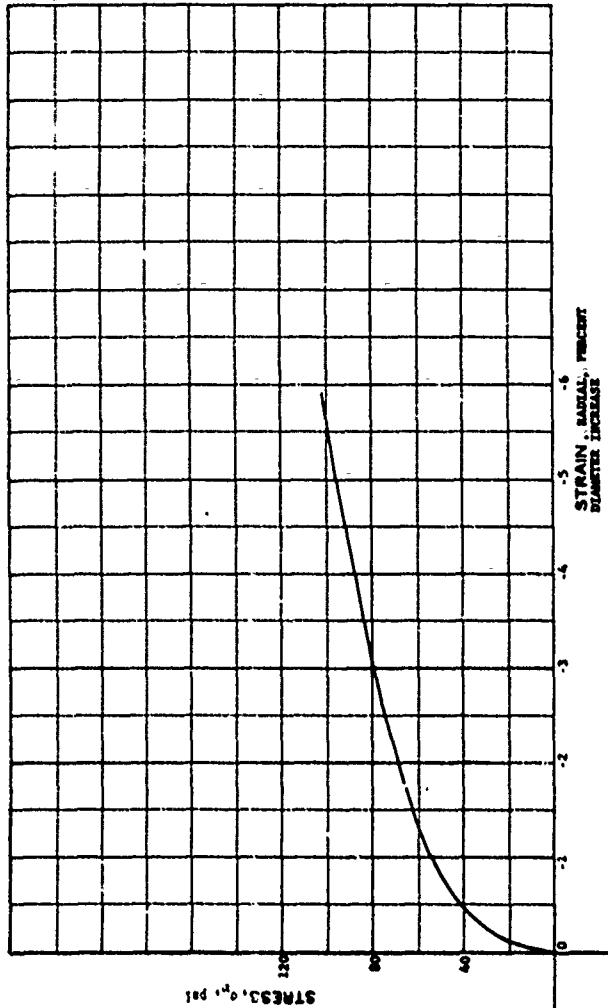
HYDROSTATIC PRESSURE, P, PSI

271



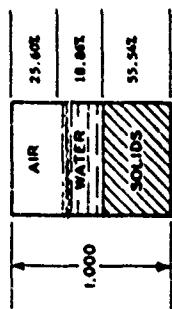
TRIAXIAL SHEAR PHASE

| | | | |
|--|---------------------------------------|----|------|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. | DACA39-67-C-0031 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 329 | | DATE |
| DEPTH | | | |
| EL. | 36 | PL | 17 |
| LL | | | P1 |
| DESCRIPTION <u>Uachingah Hill Clay</u> | | | |
| Constant Stress Ratio, 0.4 | | | |
| Initial Pressure, 1600 psi | | | |



HYDROSTATIC COMPRESSION PHASE

| | | |
|-------------------|-----|-----------|
| WATER CONTENT | W | 12.57 % |
| VOID RATIO | e₀ | 0.80 |
| SATURATION | S₀ | 42.41 % |
| DRY DENSITY | γ_d | 93.51pcf |
| WET DENSITY | γ | 105.34pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D₀ | 3.49 CM |
| SPECIMEN HEIGHT | H₀ | 7.62 CM |



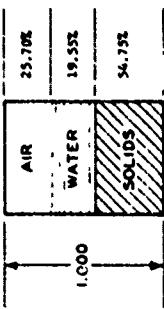
HYDROSTATIC PRESSURE, P, PSI

272

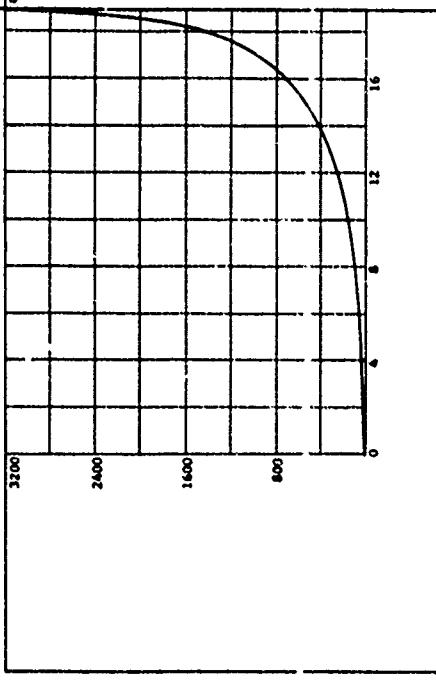
| | | |
|--------------------------------------|--|-------|
| PROJECT | Georgia Institute of Technology, B-602 | |
| Contract No. DECA39-67-C-0051. | | |
| AREA | | |
| BORING NO. | SAMPLE NO. | 179 |
| DEPTH EL. | DATE | |
| LL. 36 | PL 17 | PI 19 |
| DESCRIPTION <u>Machine Mill Clay</u> | | |
| Constant Stress Ratio, 0.4 | | |
| Initial Pressure, 1600 psi | | |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 13.22 % |
| VOID RATIO | e_0 | 0.83 |
| SATURATION | S_o | 43.20 % |
| DRY DENSITY | γ_d | 92.25pcf |
| WET DENSITY | γ | 104.45pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.57 cm |
| SPECIMEN HEIGHT | H_o | 7.36 cm |

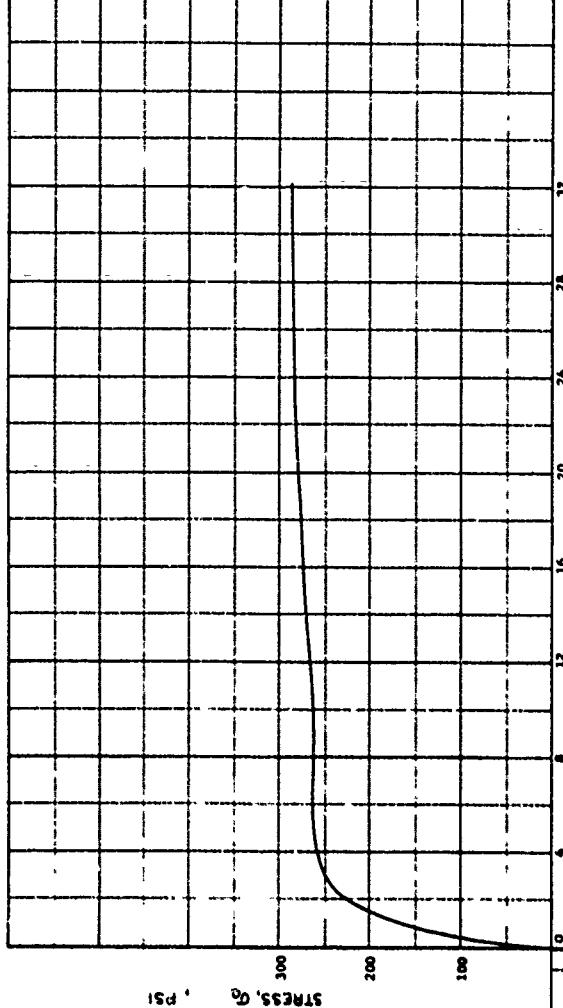


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P , PSI

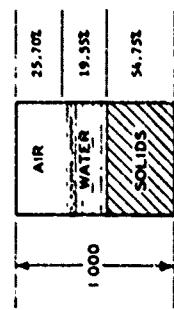
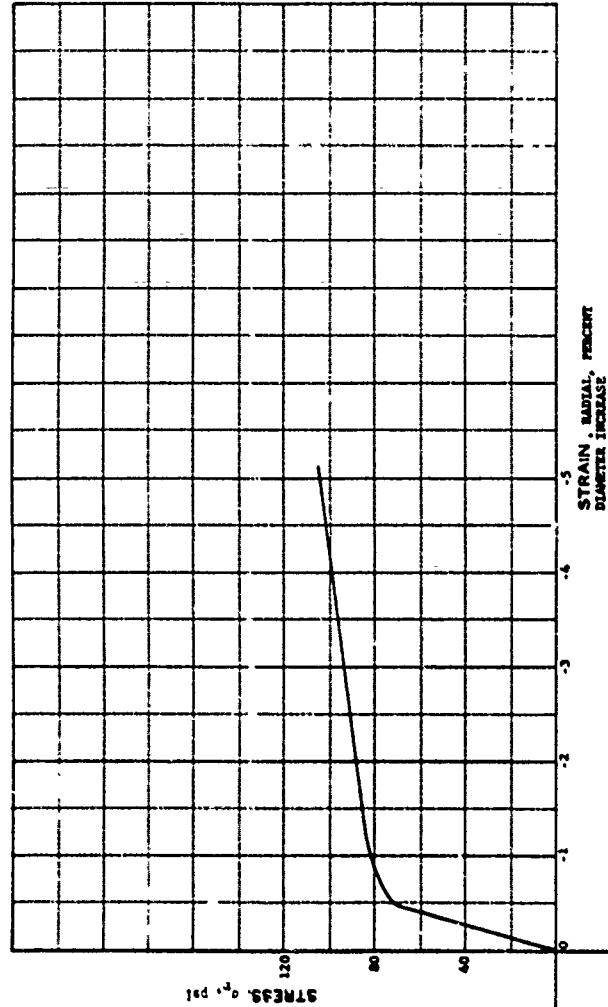
273



DEVIATOR STRAIN, $\epsilon_d - \epsilon_r$, PERCENT
TRIAXIAL SHEAR PHASE

| | | |
|--|---------------------------------------|----|
| PROJECT | Georgia Institute of Technology B-602 | |
| Contract No. DACA39-67-C-0031 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. 30 | |
| DEPTH | DATE | |
| EL. | | |
| L.L. | PL | P1 |
| DESCRIPTION <u>switching Hill Clay</u> | | |
| Constant Stress Ratio, 0.4 | | |
| Initial Pressure, 3200 psi | | |

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 13.22 % |
| VOID RATIO | e_0 | 0.83 |
| SATURATION | S_g | 43.20 % |
| DRY DENSITY | γ_d | 92.35pcf |
| WET DENSITY | γ | 105.45pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.37 cm |
| SPECIMEN HEIGHT | H_o | 7.16 cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

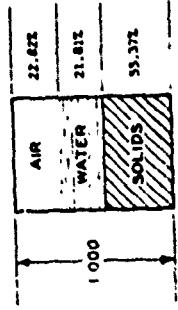
274

| | | | |
|--------------|---------------------------------------|------|-------|
| PROJECT | Georgia Institute of Technology B-612 | | |
| Contract No. | DMR39-67-C-0051 | | |
| <u>AREA</u> | | | |
| BORING NO. | SAMPLE NO. 203 | DATE | |
| DEPTH E.L. | PL | 17 | PL 19 |
| LL | 26 | | |

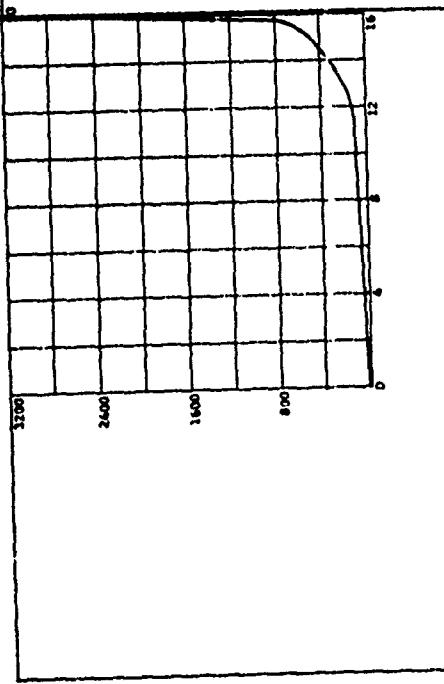
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

DESCRIPTION Watching Hill Clay
Constant Stress Ratio, 0.4
Initial Pressure, 2200 psi

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 16.59 | % |
| VOID RATIO | e ₀ | 0.81 | |
| SATURATION | S ₀ | 48.86 | % |
| DRY DENSITY | γ _d | 93.29 | pcf |
| WET DENSITY | γ | 106.90 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |

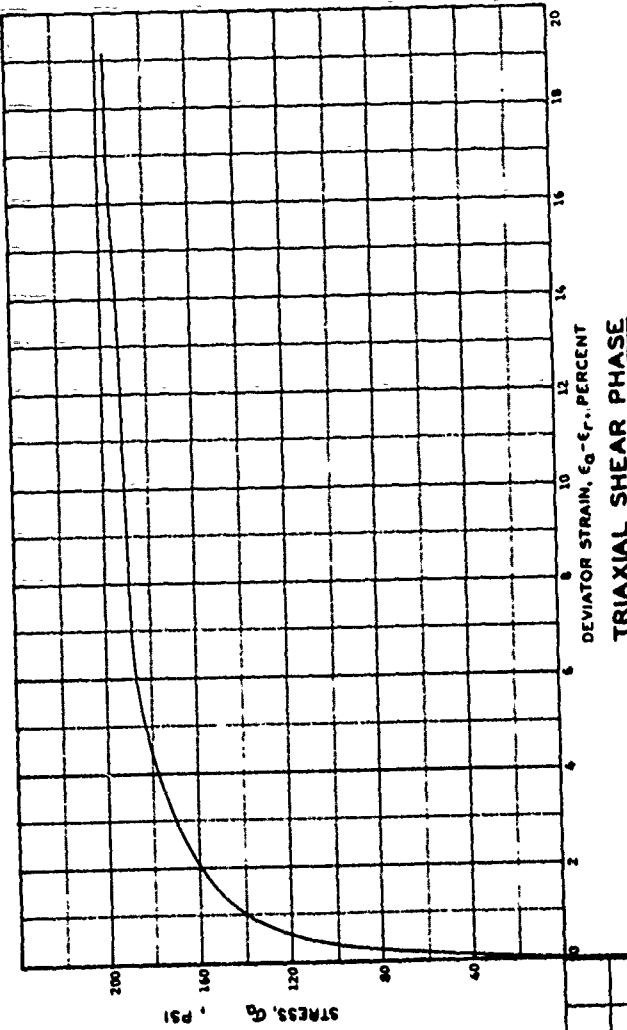


HYDROSTATIC COMPRESSION PHASE



2/5

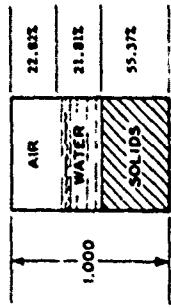
HYDROSTATIC PRESSURE, P, PSI



TRIAXIAL SHEAR PHASE

| | | | |
|----------------------------|------------|---------------------------------------|------|
| PROJECT | | Georgia Institute of Technology S-602 | |
| | | Contract No. DACA39-67-C-0051 | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | DATE | |
| DEPTH S.L. | | L.L. | P.L. |
| 36 | 30A | 17 | 19 |
| DESCRIPTION | | | |
| Matching Mill Clay | | | |
| Constant Stress Ratio, 0.4 | | | |
| Initial Pressure, 3200 psi | | | |

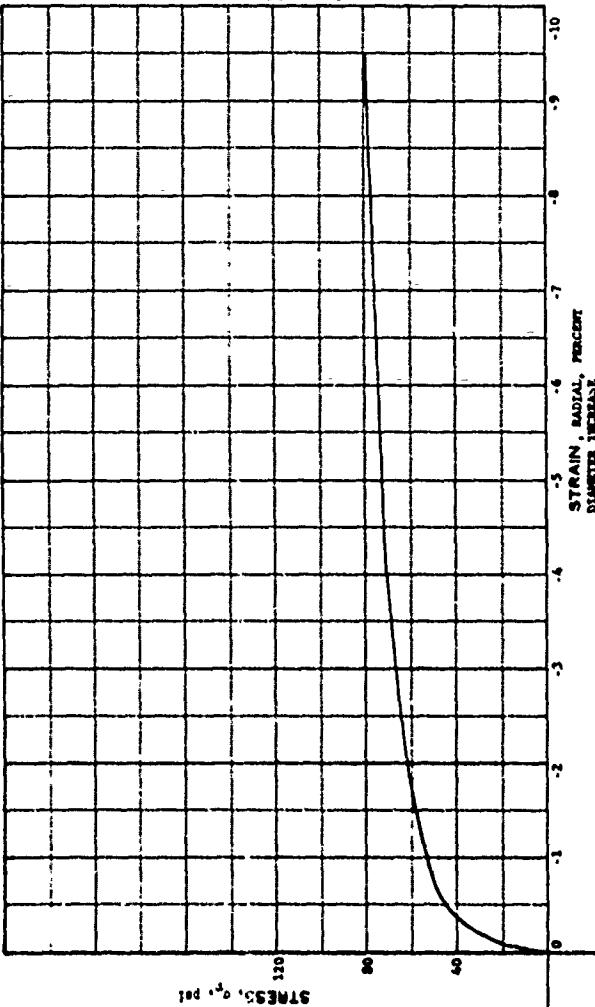
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 16.59 % |
| VOID RATIO | e ₀ | 0.61 |
| SATURATION | S ₀ | 48.86 % |
| DRY DENSITY | γ_d | 93.29 PCF |
| WET DENSITY | γ' | 106.90 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

?76

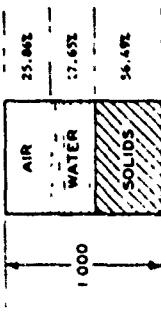


| | | | |
|--------------------------------------|---|----|----|
| PROJECT | Georgia Institute of Technology B-602 Contract No. DMAE9-67-C-0011 | | |
| AREA | | | |
| FORING NO. | Sample NC :14 | | |
| DEPTH | | | |
| EL | DATE | | |
| LL | 36 | PL | 17 |
| | | P1 | 19 |
| DESCRIPTION <u>Wetting Fill Clay</u> | | | |
| Constant Stress Ratio, 0.4 | | | |
| Initial Pressure, 3200 psi | | | |

VOLUME METRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|------------------|----------------|------------|
| WATER CONTENT | W | 11.37 % |
| VOID RATIO | e ₀ | 0.77 |
| SATURATION | S ₀ | 40.37 % |
| DRY DENSITY | D _d | 95.18 PCF |
| WET DENSITY | D _w | 106.19 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| DIAMETER | D _o | 3.48 CM |
| SPECIMEN HEIGHT | H _o | 7.63 CM |

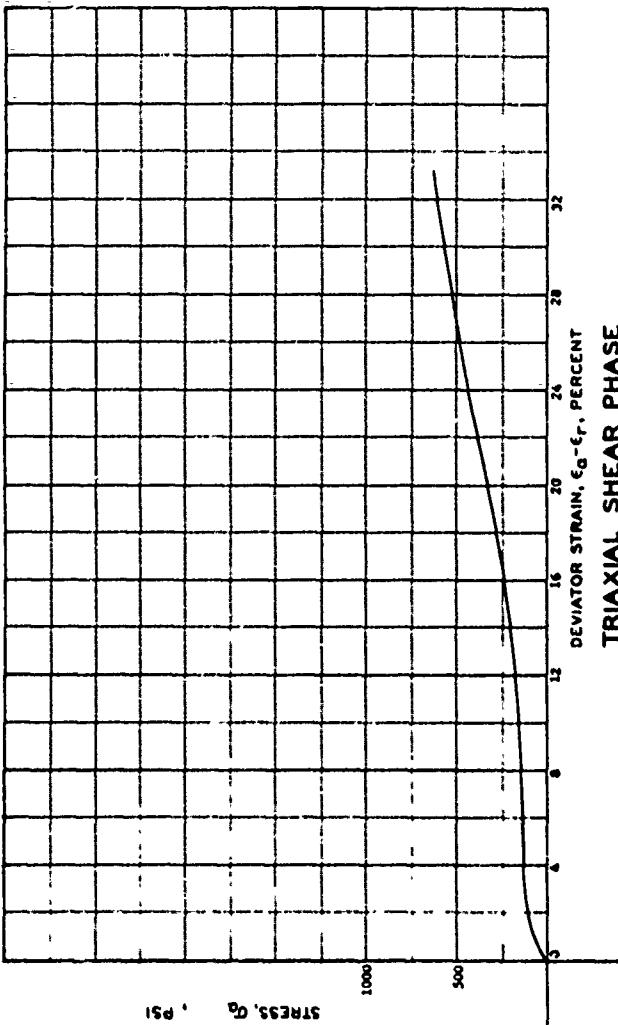
STRESS, G_a, PSI



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

77

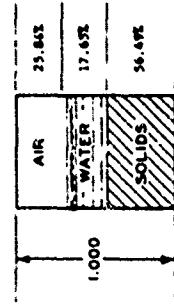


TRIAXIAL SHEAR PHASE

| | | | |
|-----------------------------|---------------------------------------|----|----|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. DMAE92-0-50051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 248 | | |
| DEPTH EL. | DATE | | |
| LL | 36 | PL | 17 |
| | | PI | 19 |

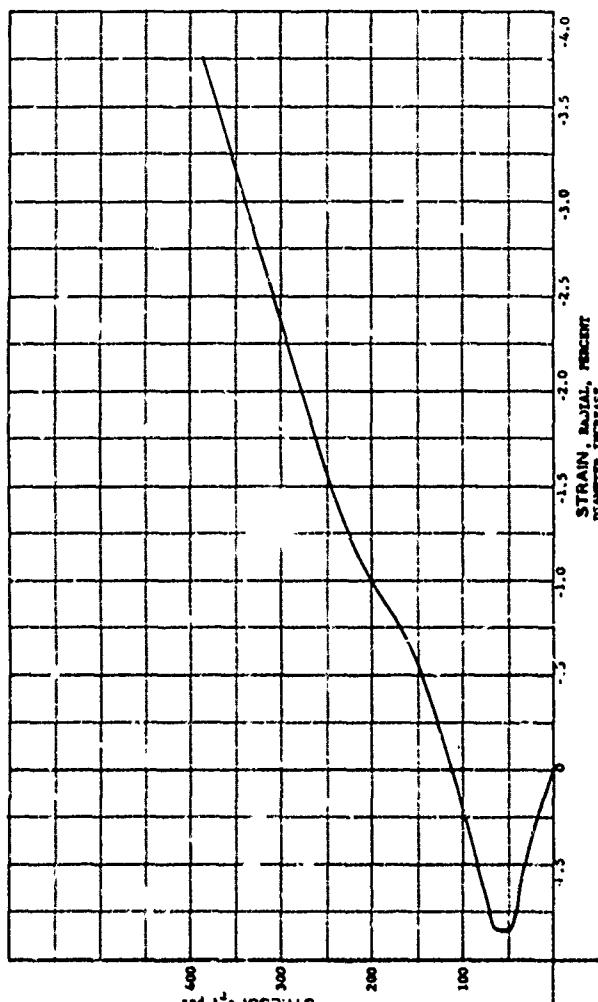
DESCRIPTION Hatchet Hill, Clay
Constant Stress Ratio, 0.6
Initial Pressure, 0 psi

| | | |
|-------------------|------------|------------|
| WATER CONTENT | w | 11.57 % |
| VOID RATIO | e_0 | 0.77 |
| SATURATION | S_s | 40.37 % |
| DRY DENSITY | γ_d | 95.18 PCF |
| WET DENSITY | γ_w | 106.19 PCF |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_0 | 3.48 CM |
| SPECIMEN HEIGHT | H_0 | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI



HYDROSTATIC PRESSURE, P, PSI

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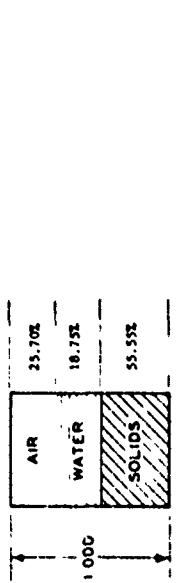
| | |
|--|----------------|
| PROJECT <u>Georgia Institute of Technology S-402</u> | |
| Contract No. DACA9-67-C-0031 | |
| AREA | |
| BORING NO. | SAMPLE NO. 248 |
| DEPTH | DATE |
| EL. | |
| LL | |
| PL | |
| P1 | 19 |

DESCRIPTION McElroy Hill Clay

Constant Stress Ratio, 0.6

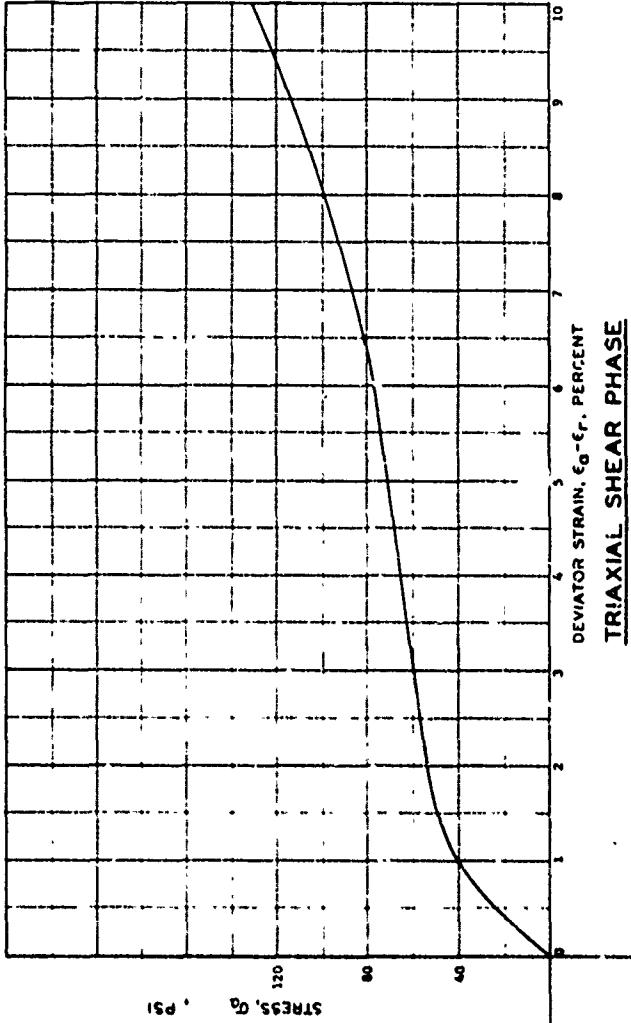
Initial Pressure, 0 psi

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.50 % |
| VOID RATIO | e_0 | 0.80 |
| SATURATION | S_o | 42.18 % |
| DRY DENSITY | γ_d | 93.59pcf |
| WET DENSITY | γ | 105.29pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.49 cm |
| SPECIMEN HEIGHT | H_o | 7.62 cm |



HYDROSTATIC PRESSURE, P, PSI

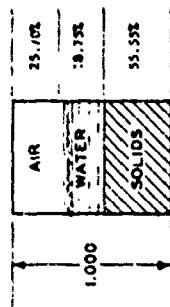
279



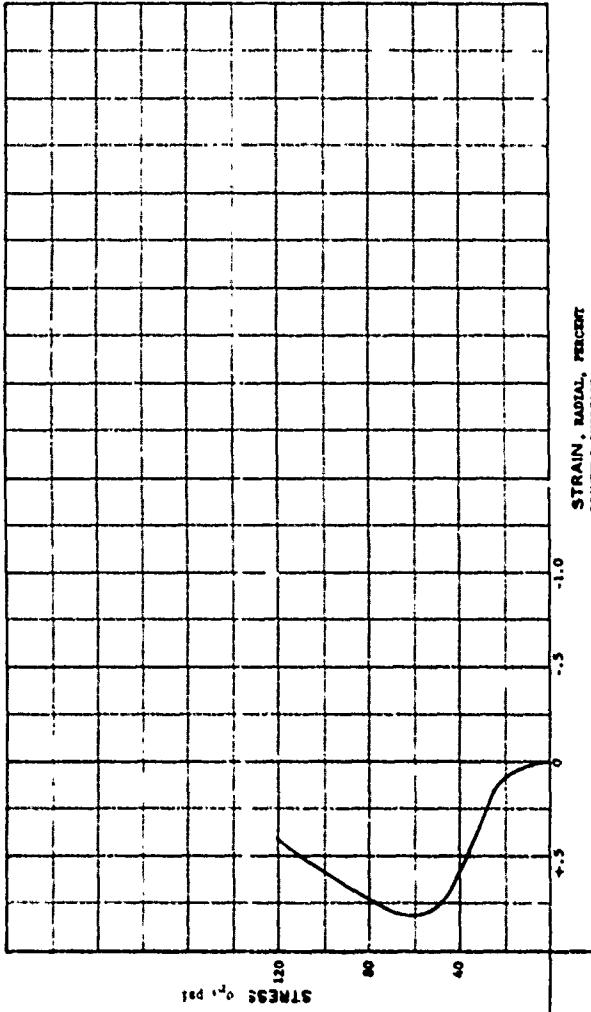
| | | | |
|----------------------------|--------------------------------------|-----|----|
| PROJECT | Georgia Institute of Technology #402 | | |
| Contract No. | DMCA32-67-C-0051 | | |
| <u>AREA</u> | | | |
| BORING NO. | SAMPLE NO. | 266 | |
| DEPTH | DATE | | |
| EL | LL | PL | P1 |
| | 36 | 17 | 19 |
| <u>DESCRIPTION</u> | | | |
| Hatching Hill Clay | | | |
| Constant Stress Ratio, 0.6 | | | |
| Initial Pressure, 0 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|------------|
| WATER CONTENT | w | 12.50 % |
| VOID RATIO | e_0 | 0.60 |
| SATURATION | S_o | 42.18 % |
| DRY DENSITY | γ_d | 93.35 PCF |
| WET DENSITY | γ | 105.39 PCF |
| SPECIFIC GRAVITY | G_o | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.69 CM |
| SPECIMEN HEIGHT | H_o | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE



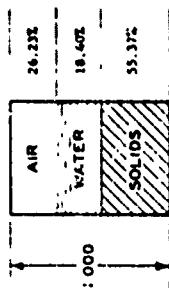
HYDROSTATIC PRESSURE, P, PSI

280

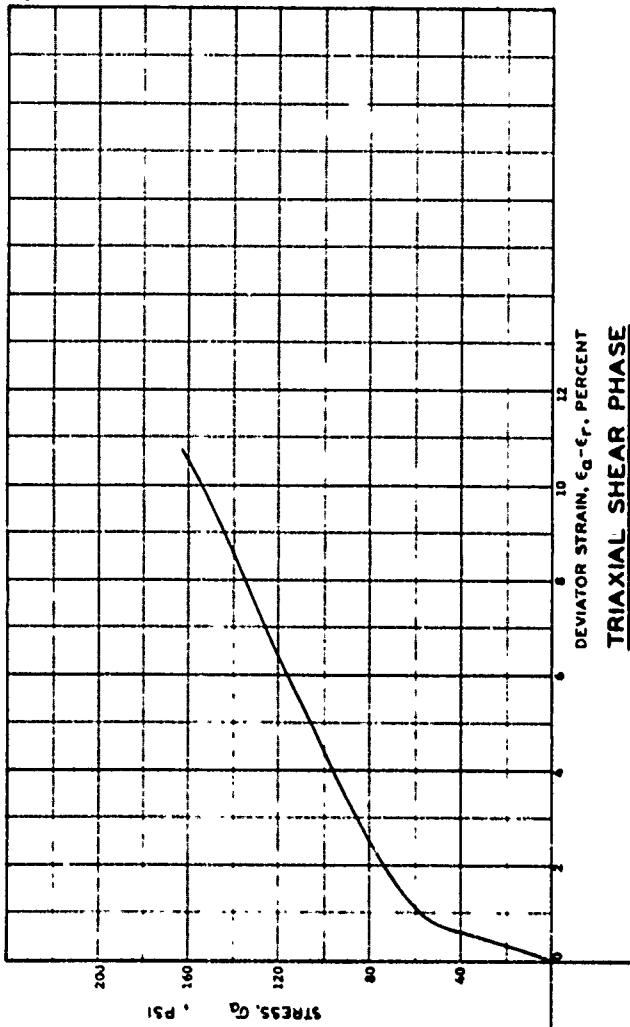
| | | | |
|--------------------------------------|--|----|----|
| PROJECT | Georgia Institute of Technology, B-602 | | |
| Contract No. DACA39-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 216 | | |
| DEPTH | DATE | | |
| EL | LL | PL | P1 |
| 36 | 17 | | 19 |
| DESCRIPTION <u>Wetting Mill Clay</u> | | | |
| Consistency <u>Stiff</u> | | | |
| Compressive Strength Ratio, 0.6 | | | |
| Initial Pressure, 0 psi | | | |

VOLMETRIC STRAIN, AV/V, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.31 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S _o | 41.23 % |
| DRY DENSITY | γ_d | 93.29 PCF |
| WET DENSITY | γ_w | 104.78 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D _o | 3.50 CM |
| SPECIMEN HEIGHT | H _o | 7.69 CM |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

| | | |
|-------------------------------|---------------------------------------|----------------|
| PROJECT | Georgia Institute of Technology B-402 | |
| Contract No. DACA19-67-C-0051 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. 267 | |
| DEPTH | DATE | |
| EL. | | |
| LL | PL | P ₁ |
| | 17 | 19 |

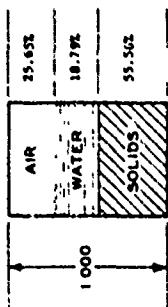
DESCRIPTION *Watching Hill Clay*

Constant Stress Ratio, 0.6

Initial Pressure, 0 psi

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

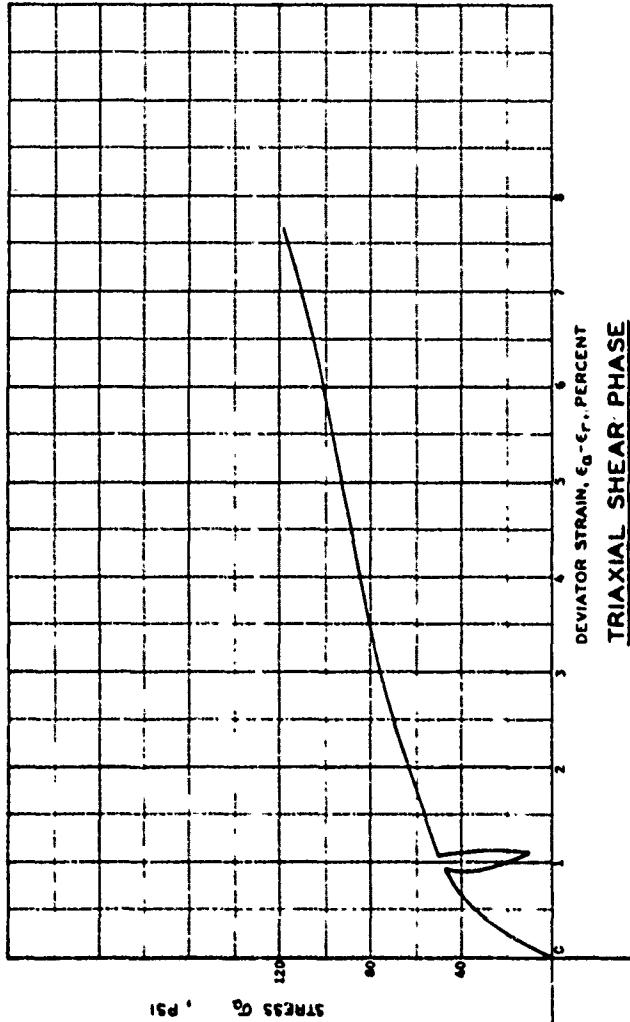
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.52 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S ₀ | 42.26 % |
| DRY DENSITY | γ_d | 93.60 PCF |
| WET DENSITY | γ | 105.32 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

282



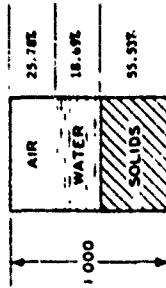
TRIAXIAL SHEAR PHASE

| | | |
|------------|--|----|
| PROJECT | Geotechnical Institute of Technology, B-602. | |
| | Contract No. DMCA39-67-C-0051 | |
| AREA | | |
| BORING NO. | SAMPLE NO. 344 | |
| DEPTH | DATE | |
| EL. | PL | P1 |
| LL | 16 | 17 |
| | | 19 |

DESCRIPTION Matchabill Clay
Constant Stress Ratio, 0.6
Initial Pressure, 0 psi; Cycle Shear @ 3%

VOLUMETRIC STRAIN, $\Delta V / V_0$, PERCENT

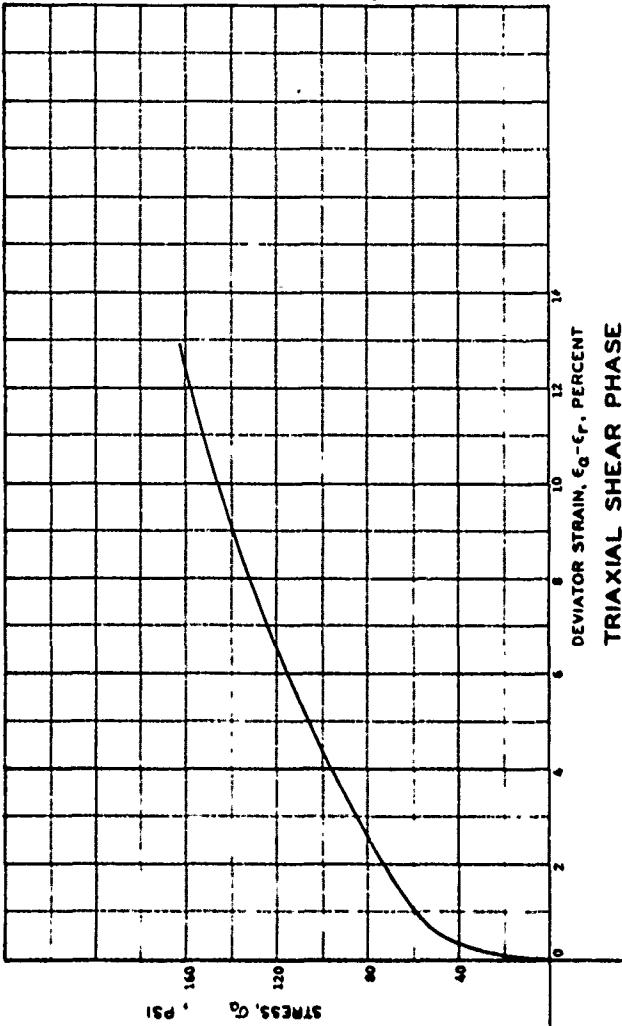
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.47 | % |
| VOID RATIO | e_0 | 0.80 | |
| SATURATION | S_o | 42.06 | % |
| DRY DENSITY | γ_d | 91.57 | pcf |
| WET DENSITY | γ | 105.23 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, psi

203



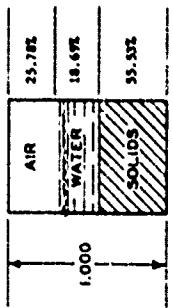
TRIAXIAL SHEAR PHASE

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------------------|---------------------------------------|----|----|
| PROJECT | Georgia Institute of Technology 8-602 | | |
| Contract No. DACA39-67-C-0051 | | | |
| AREA | SAMPLE NO. 348 | | |
| BORING NO. | DATE | PL | P1 |
| DEPTH EL. | | 17 | 19 |
| LL | | | |

DESCRIPTION: Waching Hill Clay
Constant Strain Ratio, 0.6
Initial Pressure, 0 psi

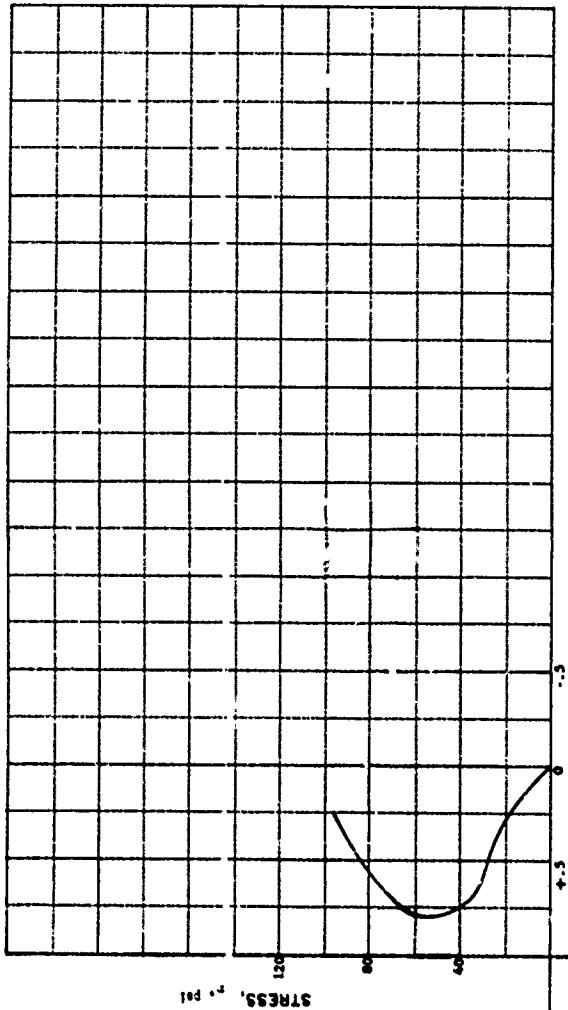
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.4% |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S _o | 42.06% |
| DRY DENSITY | D _d | 95.57 PCF |
| WET DENSITY | D _w | 105.23 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| TEST HEIGHT | H ₀ | 1.62 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

284

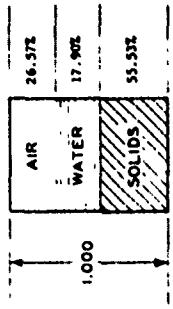


STRAIN, RADIAL, PERCENT
DIAMETER INCREASE

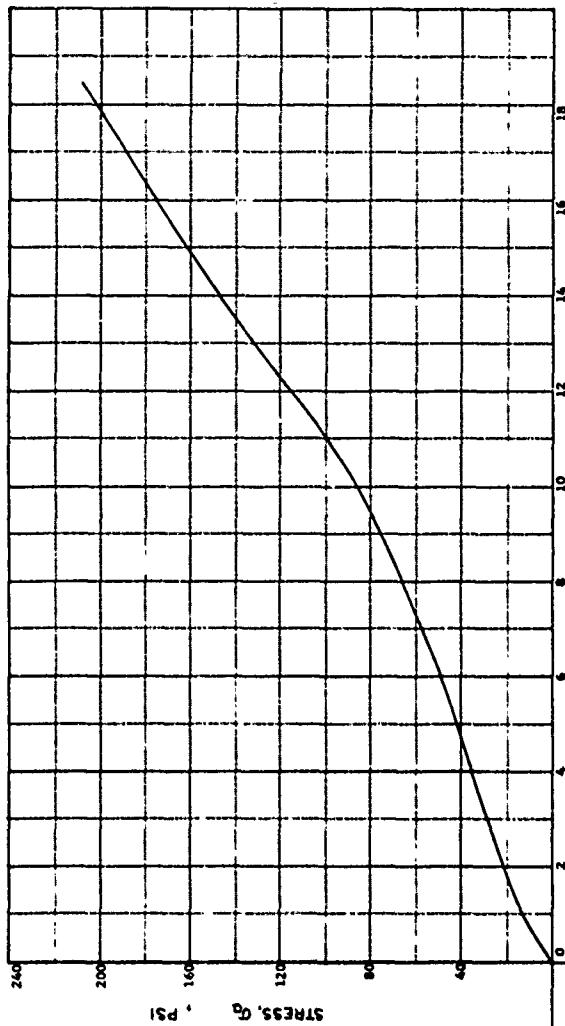
| | | |
|--------------------------------|---------------------------------------|----|
| PROJECT | Georgia Institute of Technology B-602 | |
| Contract No. DACA39-67-C-0051 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. 348 | |
| DEPTH | DATE | |
| EL | | |
| LL | 36 | PL |
| | 17 | P1 |
| DESCRIPTION Watchung Hill Clay | | |
| Constant Stress Ratio, 0.6 | | |
| Initial Pressure, 0 psi | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 11.93 | % |
| VOID RATIO | e_0 | 0.80 | |
| SATURATION | S_0 | 40.24 | % |
| DRY DENSITY | γ_d | 93.56 | PCF |
| WET DENSITY | γ | 104.72 | PCF |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.49 | CM |
| SPECIMEN HEIGHT | H_o | 7.62 | CM |



HYDROSTATIC COMPRESSION PHASE



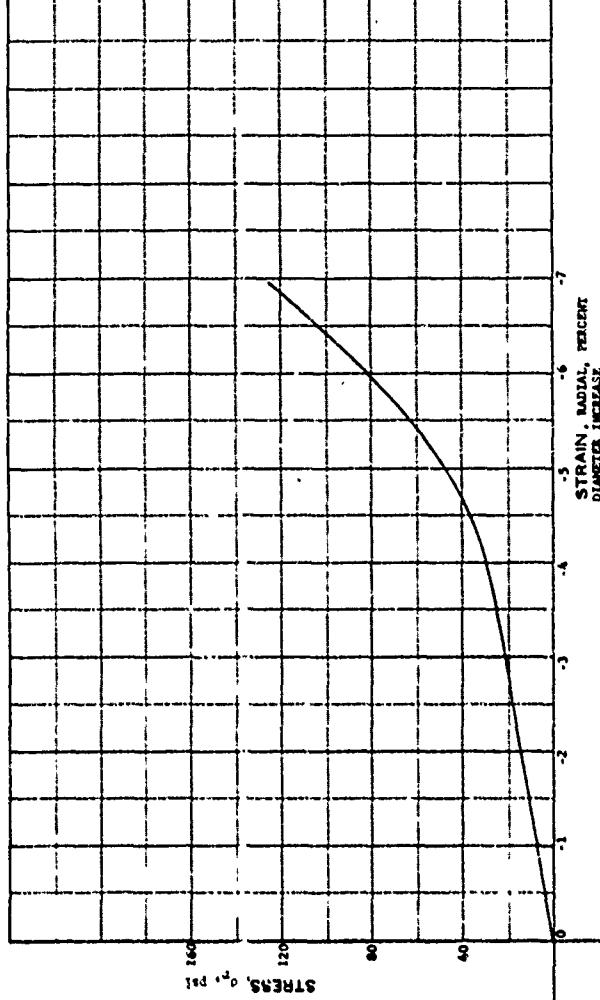
HYDROSTATIC PRESSURE, P , PSI

285

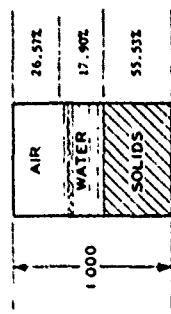
TRIAXIAL SHEAR PHASE

| | | | |
|------------------------------|--|----|----|
| PROJECT | Geotechnical Institute of Technology B-602 | | |
| Contract No. DMA39-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 294 | | |
| DEPTH | DATE | | |
| EL | | | |
| LL | 36 | PL | 17 |
| | | P1 | 19 |
| DESCRIPTION | Watchung Hill Clay | | |
| Constant Stress Ratio, 0.6 | | | |
| Initial Pressure, 100 ksf | | | |

VOLUMETRIC STRAIN, $\Delta V/V_L$, PERCENT



| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | w | 11.9% |
| VOID RATIO | e ₀ | 0.40 |
| SATURATION | s ₀ | 40.2% |
| DRY DENSITY | γ _d | 93.56pcf |
| WET DENSITY | γ _w | 104.12pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.69 cm |
| SPECIMEN HEIGHT | H ₀ | 7.67 cm |



HYDROSTATIC COMPRESSION PHASE

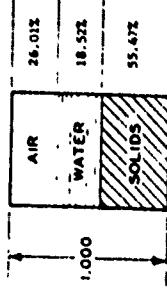
HYDROSTATIC PRESSURE, P, PSI

286

| | | |
|--------------|--|----------------------------|
| PROJECT | Georgia Institute of Technology, B-192 | |
| Contract No. | DMCASS-DTC-0051 | |
| AREA | Soil No. | Sample No. |
| BORING NO. | DEPTH | DATE |
| LL | 36 | PL 17 P1 19 |
| DESCRIPTION | Watchung Hill Clay | Constant Stress Ratio, 0.6 |
| | | Initial Pressure, 100 psi |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

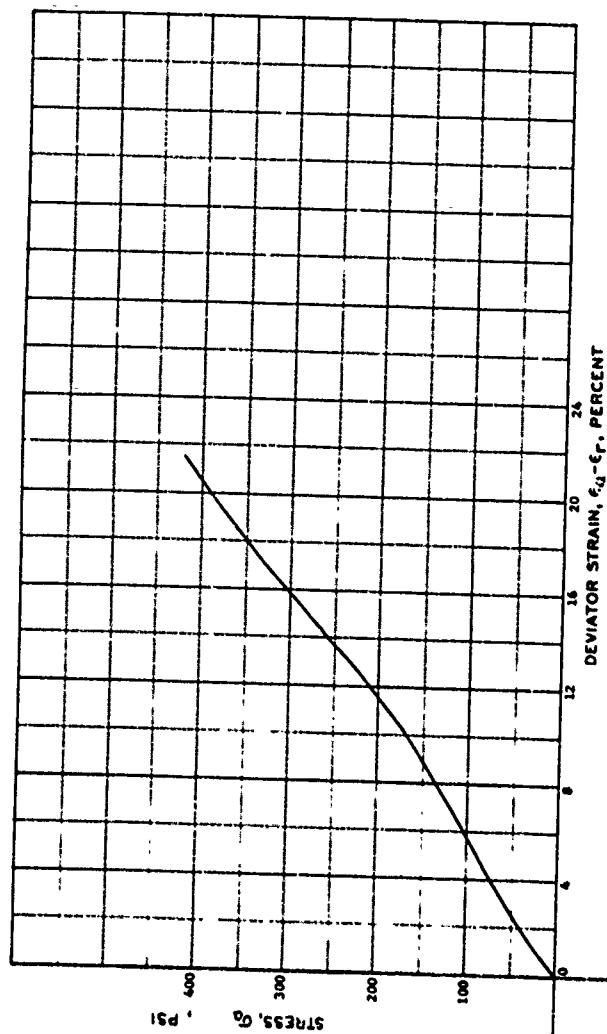
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.37 % |
| VOID RATIO | e ₀ | 0.60 |
| SATURATION | S _o | 41.61 % |
| DRY DENSITY | γ_d | 93.45 PCF |
| WET DENSITY | γ_w | 105.01 PCF |
| SPECIFIC GRAVITY | G _s | 2.76 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

287

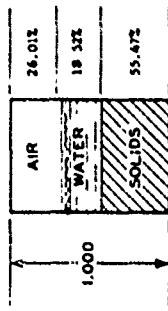
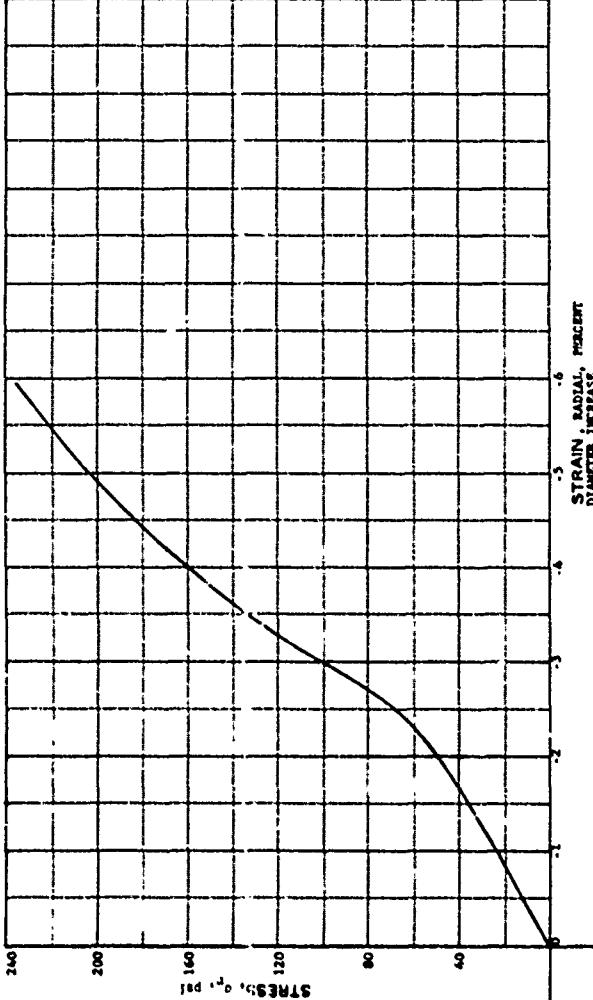


TRIAXIAL SHEAR PHASE

| | | | |
|-----------------------------|---------------------------------------|--------------------|-----|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. DMA3963-C-0051 | | | |
| AREA | | | |
| BORING NO. | PL | SAMPLE NO. | 304 |
| DEPTH | | DATE | |
| EL. | | | |
| L.L. | 36 | P1 | 19 |
| DESCRIPTION | | Watchorn Hill Clay | |
| Constant Stress Ratio, 0.6 | | | |
| Initial Pressure, 100 psi | | | |

VOLUMETRIC STRAIN, $\delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.51 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S ₀ | 41.61 % |
| DRY DENSITY | γ_d | 93.45pcf |
| WET DENSITY | γ_w | 105.01pcf |
| SPECIFIC GRAVITY | G _s | 2.76 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE

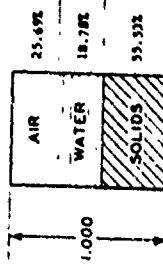
HYDROSTATIC PRESSURE, π , psi

288

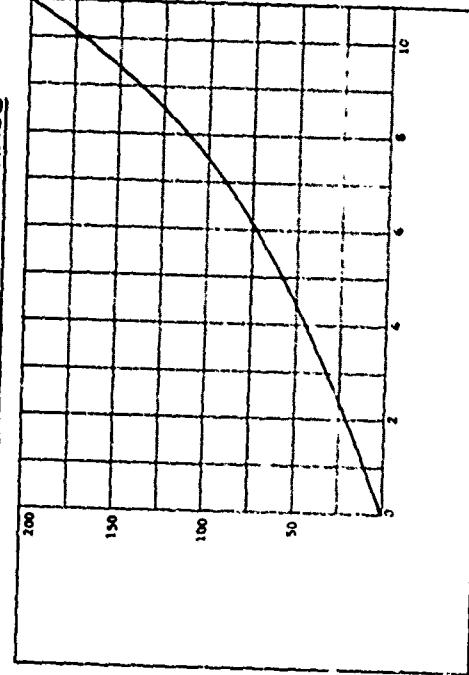
| | | | |
|--------------------------------|--|----|-------|
| PROJECT | Georgia Institute of Technology, B-602 | | |
| Contract No. | DACA39-67-C-0051 | | |
| AREA | | | |
| BORENG NO. | SAMPLE NO. 205 | | |
| DEPTH | DATE | | |
| EL. | PL | 17 | PI 19 |
| DESCRIPTION Watchung Hill Clay | | | |
| Constant Stress Ratio, 2.6 | | | |
| Initial Pressure, 100 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V$, PERCENT

| | | |
|----------------------------------|----------------|-----------|
| WATER CONTENT | W | 12.33 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S ₀ | 42.76 % |
| DRY DENSITY | γ_d | 93.54pcf |
| WET DENSITY | γ_w | 105.38pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER D ₀ | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT H ₀ | H ₀ | 7.62 CM |
| SPECIMEN HEIGHT | | |

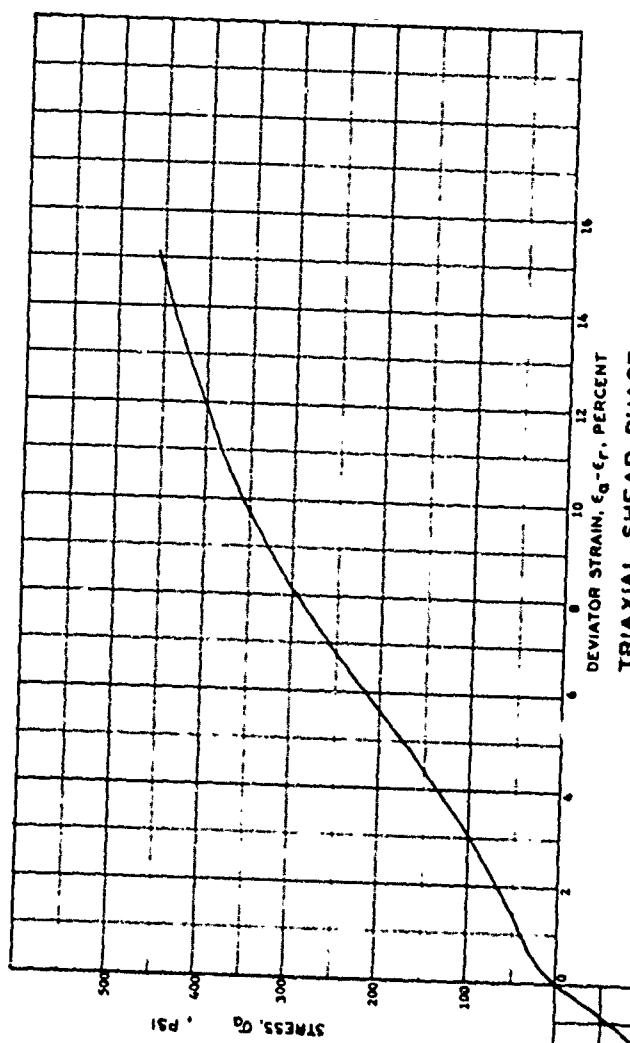


HYDROSTATIC COMPRESSION PHASE



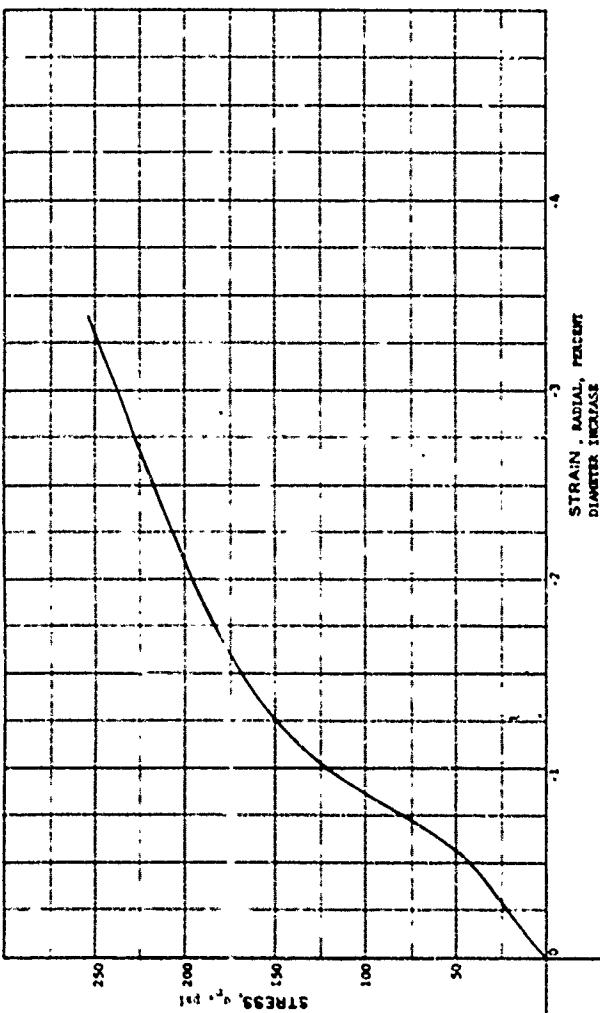
HYDOSTATIC PRESSURE, P, PSI

289



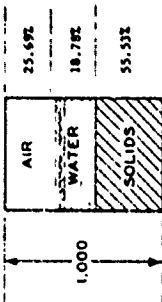
TRIAXIAL SHEAR PHASE

| | | | |
|----------------------------------|---------------------------------------|----|----|
| PROJECT | Georgia Institute of Technology 8-602 | | |
| Contract No. | DACA9-67-C-0051 | | |
| AKA | | | |
| BORING NO. | SAMPLE NO. 200 | | |
| DEPTH | DATE | | |
| EL. | PL | 17 | PL |
| LL. | 36 | | 19 |
| DESCRIPTION Weathering Hill Clay | | | |
| Constant Stress Ratio, 0.6 | | | |
| Selected Pressure, 200 psi | | | |



HYDROSTATIC COMPRESSION PHASE

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.53 | % |
| VOID RATIO | e_0 | 0.80 | |
| SATURATION | S_o | 42.26 | % |
| DRY DENSITY | γ_d | 91.34 | pcf |
| WET DENSITY | γ | 105.28 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_0 | 3.49 | cm |
| SPECIMEN HEIGHT | H_0 | 7.62 | cm |



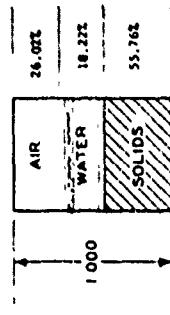
HYDROSTATIC PRESSURE, P, PSI

290

| | | |
|-------------------------------|---------------------------------------|----|
| PROJECT | Georgia Institute of Technology B-602 | |
| Contract No. DACA39-73-C-0001 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. 100 | |
| DEPTH | DATE | |
| EL. | | |
| LL | PL | P1 |
| 36 | 17 | 19 |

DESCRIPTION Watchung Hill Clay
Consolidation Stress, 24519.0, 0.6.
Initial Pressure, 200 psi

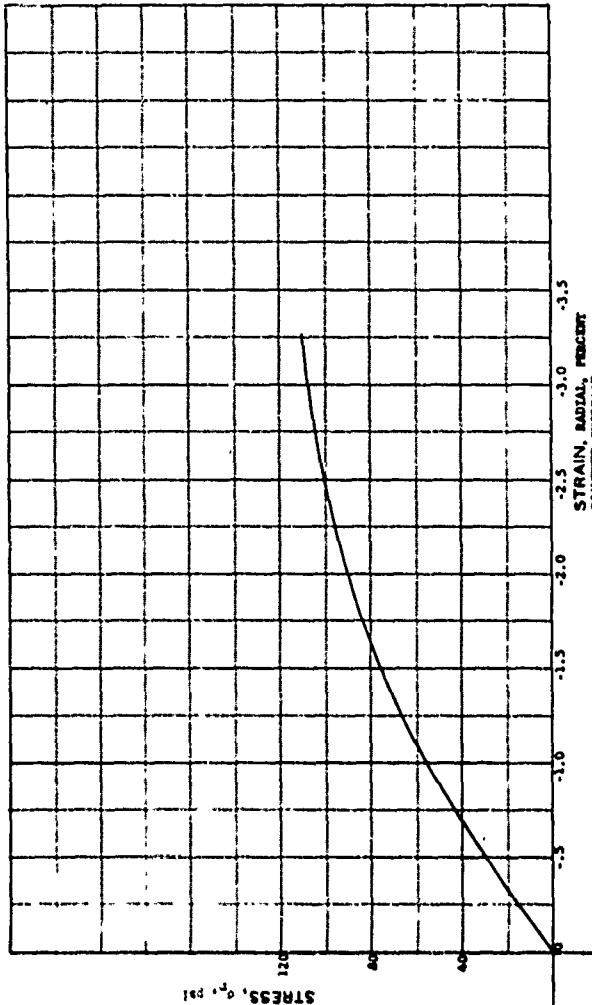
| | | |
|-------------------|----------------|---------------|
| WATER CONTENT | W | 12.11 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | s ₀ | 41.19 % |
| DRY DENSITY | γ_d | 93.3% P.C. |
| WET DENSITY | γ_w | 105.31 P.C.F. |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.61 CM |



HYDROSTATIC COMPRESSION PHASE

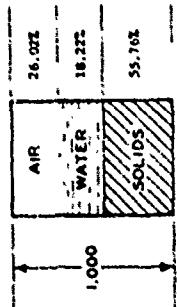
HYDROSTATIC PRESSURE, P, PSI

291

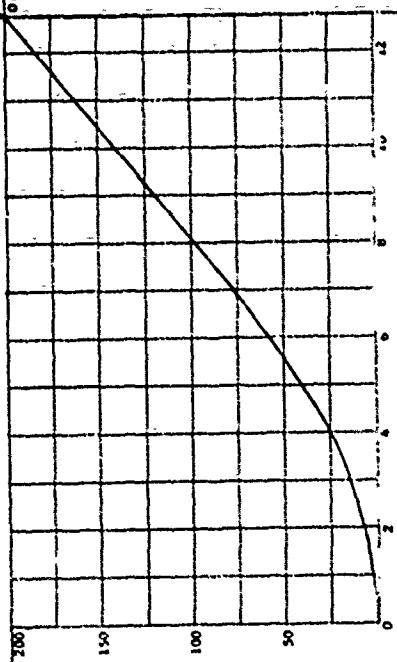


| | | | |
|----------------------------------|--|----|-------|
| PROJECT | Georgia Institute of Technology, B-102 | | |
| Contract No. DACA13-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 325 | | |
| DEPTH | DATE | | |
| EL | PL | 17 | P1 19 |
| LL | | | |
| DESCRIPTION Weathering Hill Clay | | | |
| Constant Stress Ratio, 0.6 | | | |
| Initial Pressure, 200 psi | | | |

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.11 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_g | 41.19 % |
| DRY DENSITY | γ_d | 93.56pcf |
| WET DENSITY | γ_w | 105.31pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.49 cm |
| SPECIMEN HEIGHT | H_o | 7.01 cm |

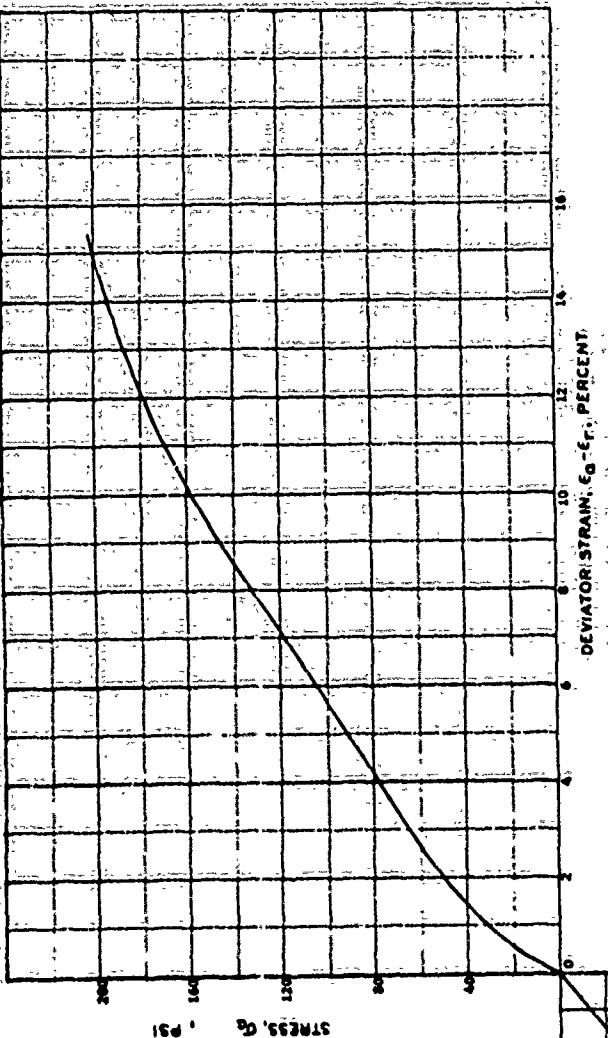


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, p, psi

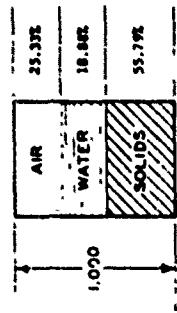
STRESS, σ₃, psi



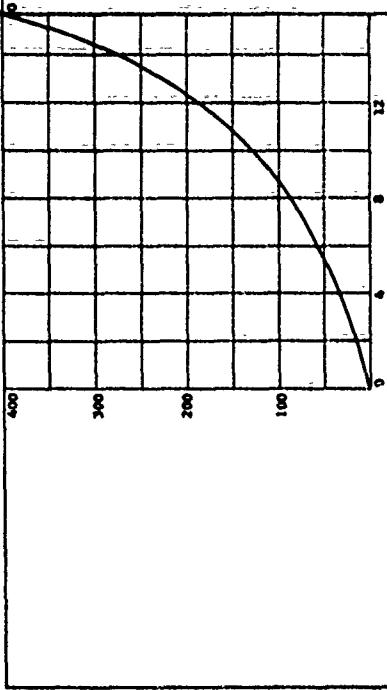
TRIAXIAL SHEAR PHASE

| | |
|-------------------------|---|
| PROJECT | Geologic Initiatives of Zephaniah S. Goff |
| Core Site No. | DC0326-40051 |
| AREA | |
| BORING NO. | |
| DEPTH, ft. | |
| LL | 36 |
| PL | 37 |
| PT | 39 |
| DESCRIPTION | Muckling Hill Clay |
| Content, Saturated, 0.6 | |
| Total Pressure, 200 psi | |

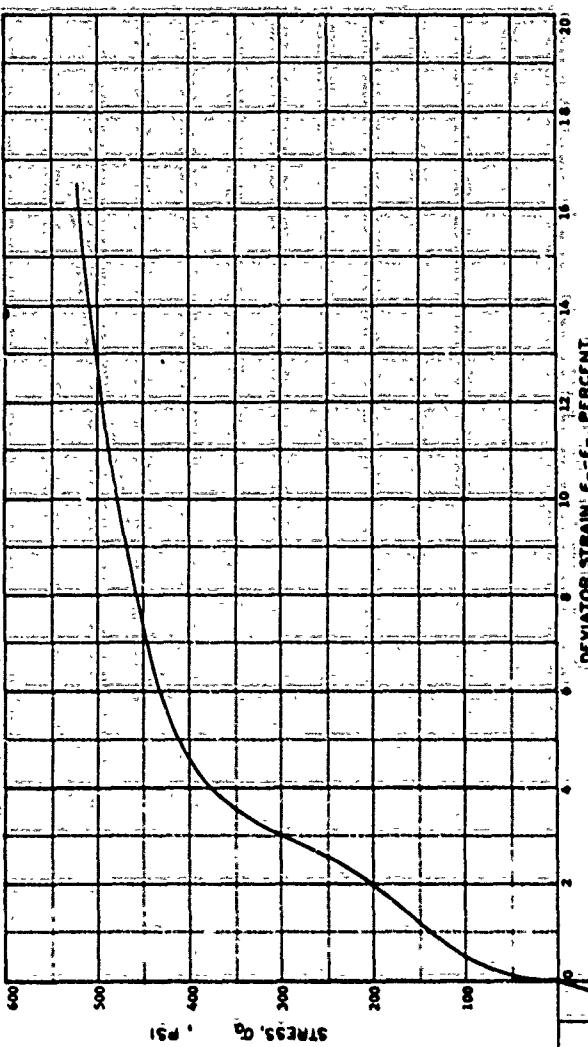
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.5% |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S _o | 42.70% |
| DRY DENSITY | γ _d | 96.00 PCF |
| WET DENSITY | γ _w | 103.78 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE



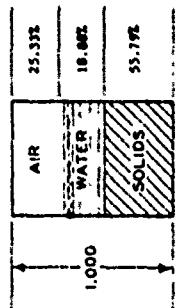
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT
HYDROSTATIC PRESSURE, P, PSI



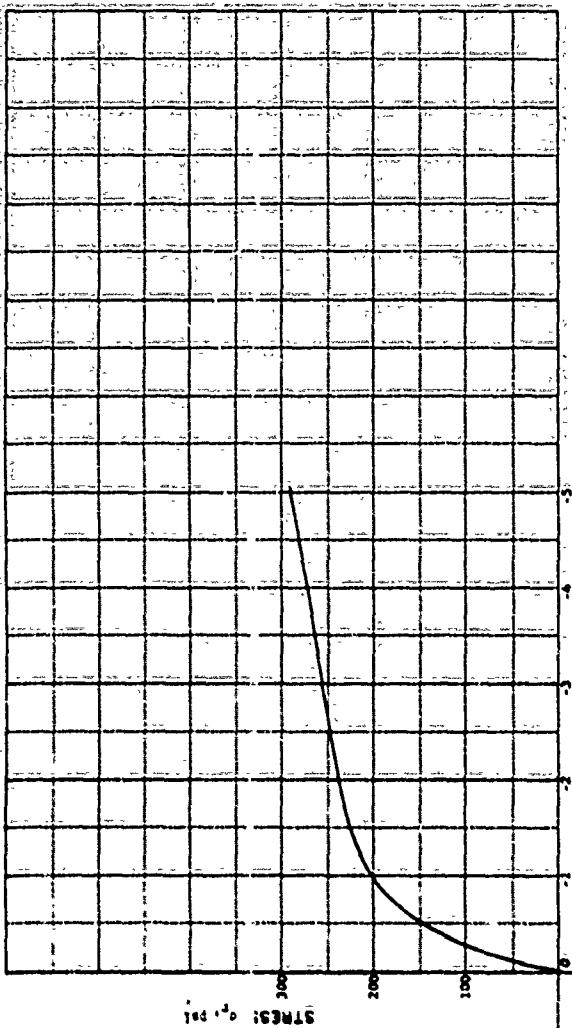
TRIAXIAL SHEAR PHASE

| | | | |
|-------------------------------|---------------------------------------|-----|----|
| PROJECT | Georgia Institute of Technology 3-602 | | |
| Contract No. NACA19-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 120 | | |
| DEPTH EL. | PL. | PI. | 19 |
| LL | 36 | | |
| DESCRIPTION: Wetted Bulk Clay | | | |
| Constant Stress Ratio, 0.6 | | | |
| Initial Pressure, 600 psi | | | |

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.53 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S ₀ | 42.70 % |
| DRY DENSITY | γ _d | 94.00 PCF |
| WET DENSITY | γ _w | 105.78 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.69 CM |
| INITIAL HEIGHT | H ₀ | 7.41 CM |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, psi

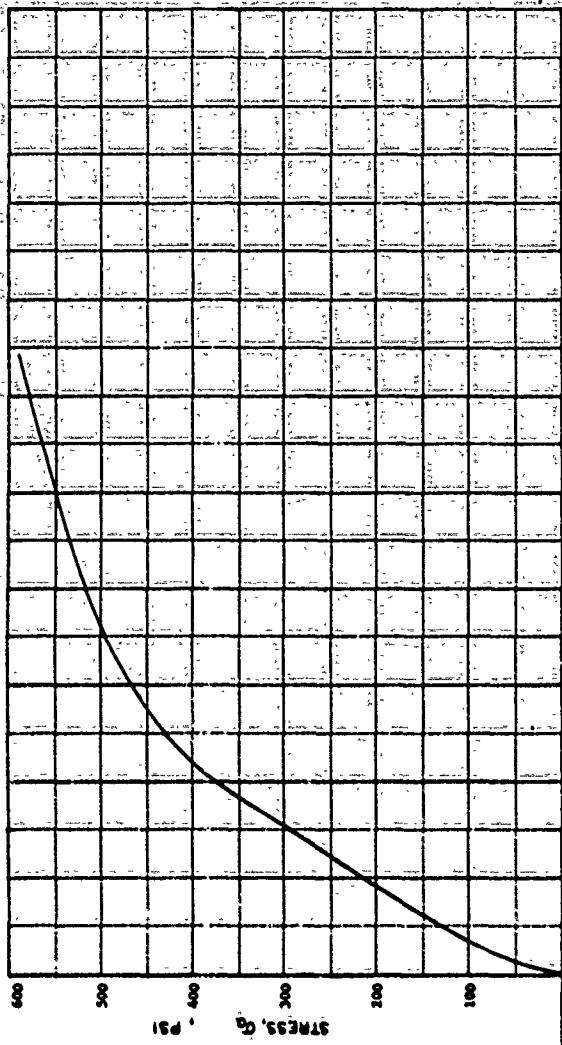
294

| | | | |
|---------------------------------|--|------|----|
| PROJECT | Georgia Institute of Technology B-6001 | | |
| Contract No.: 300-19-67-C-0051 | | | |
| AREA | SAMPLE NO. | DATE | |
| BORING NO. | | | |
| DEPTH EL. | | | |
| LL | 36 | PL | 17 |
| | | Pt | 19 |
| DESCRIPTION | Watchung Hill Clay | | |
| Consolidation Stress Ratio: 0.6 | | | |
| Initial Pressure: 400 psi | | | |

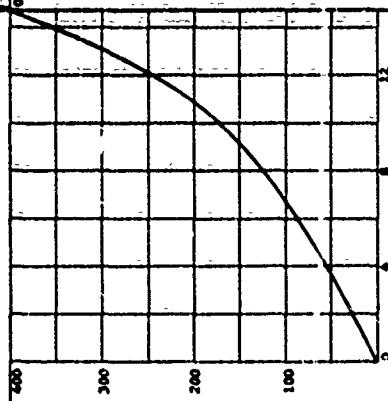
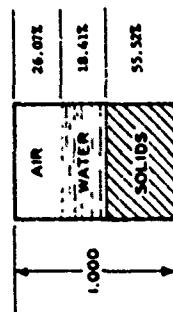
VOLUME STRAIN, ΔV/V₀, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.28 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S _o | 41.39 % |
| DRY DENSITY | γ _d | 91.54pcf |
| WET DENSITY | γ _w | 105.02pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |

STRESS, σ, psi



HYDROSTATIC COMPRESSION PHASE

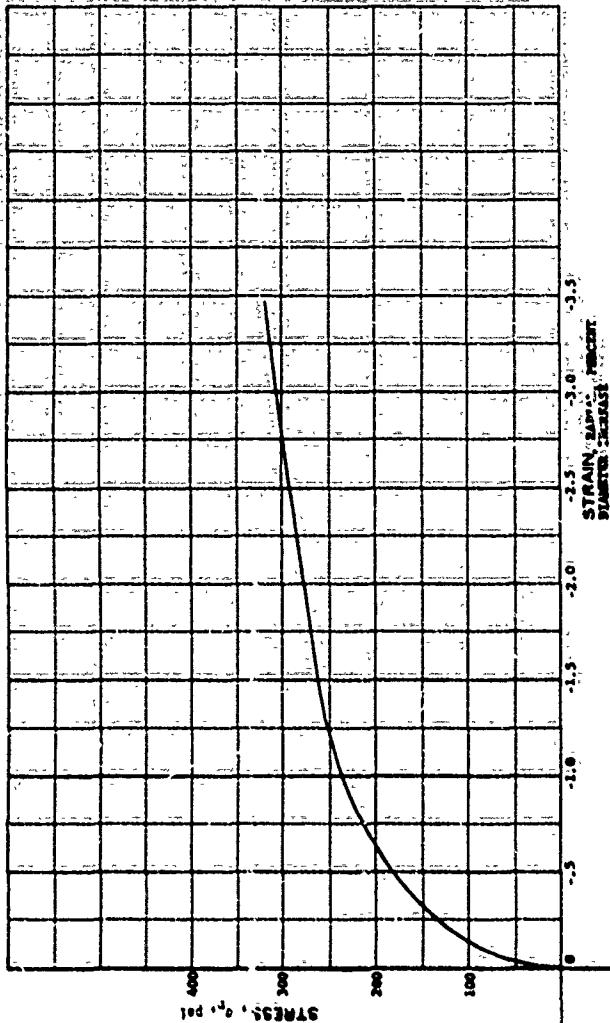


HYDROSTATIC PRESSURE, P_h, psi

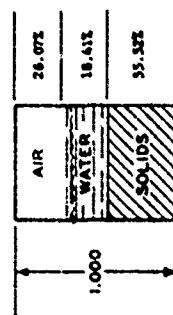
| | | | |
|------------------------------|--------------------------------------|-----|----|
| PROJECT | Georgia Institute of Technology 3-62 | | |
| Contract No. N6039-67-C-0051 | | | |
| AREA | Sample No. 338 | | |
| BORING NO. | Date | | |
| EL. | 26 | PL. | 17 |
| DESCRIPTION | Soil sample | | |
| Content, water ratio, 0.6 | | | |
| Initial Pressure, 400 psi | | | |

VOLUMETRIC STRAIN, δV/V₀, PERCENT

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.28 % |
| VOID RATIO | e_0 | 0.60 |
| SATURATION | S_o | 41.39 % |
| DRY DENSITY | γ_d | 91.54pcf |
| WET DENSITY | γ | 101.62pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.65 cm |
| SPECIMEN HEIGHT | H_o | 1.52 cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

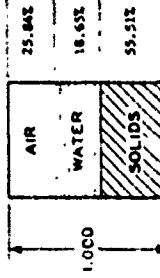
296

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|---------------------------------|--|-----------------|--------|
| PROJECT | Geotechnical Institute of Technology B-602 | | |
| Contract No. | BAC039-67-C-0031 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 338 | | |
| DEPTH EL. | PL | 17 ₁ | PT. 19 |
| LL. | 36 | | |
| DESCRIPTION: Watchdog Hill clay | | | |
| Constant Stress Ratio, 0.6 | | | |
| Initial Pressure, 400 psi | | | |

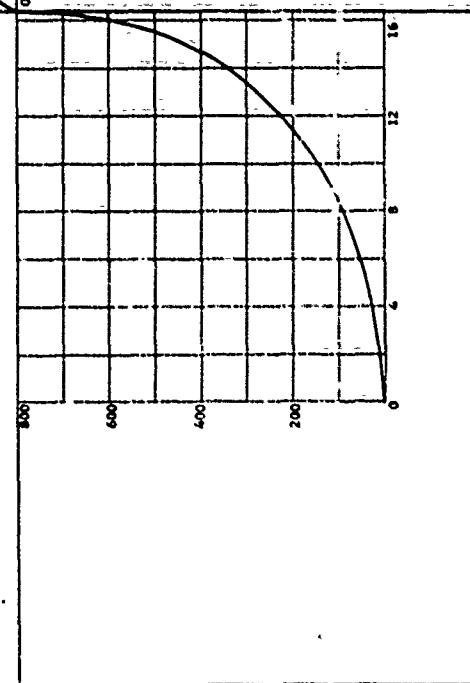
| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.44 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S _o | 41.91 % |
| DRY DENSITY | γ_d | 93.51pcf |
| WET DENSITY | γ | 105.15pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |

STRESS, QI , PSI



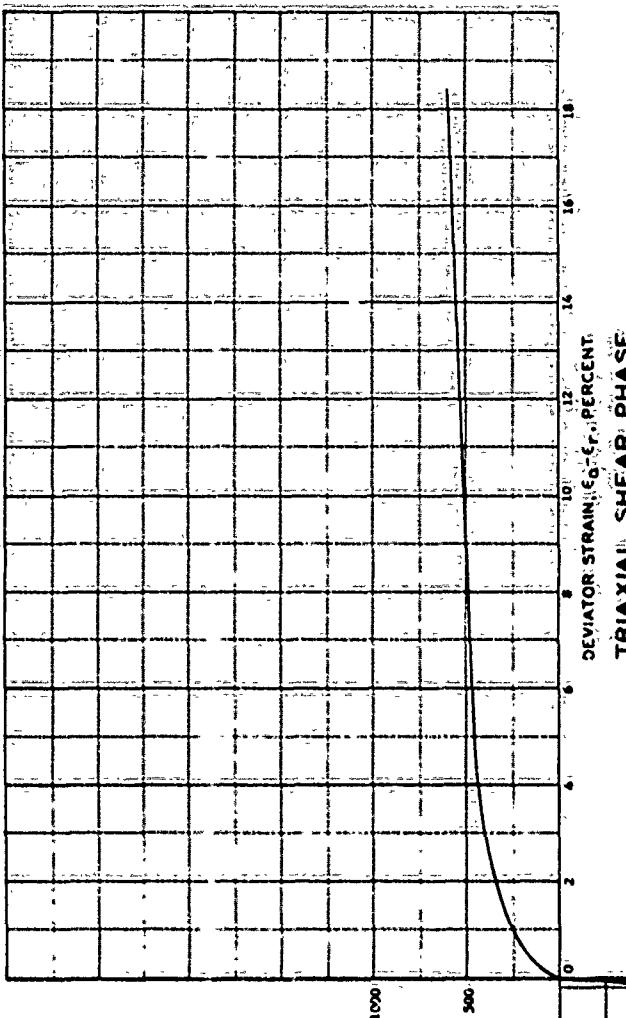
1000
2000

HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

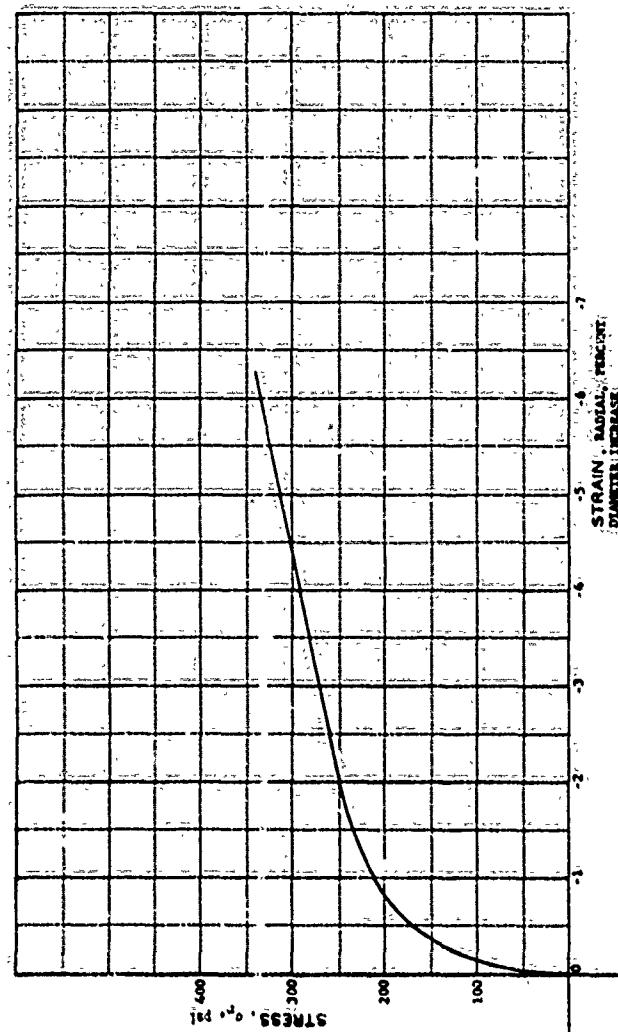
297



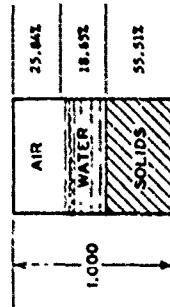
DEVIATOR STRAIN, Q-T, PERCENT
TRIAXIAL SHEAR PHASE

| | |
|-------------------------------|---------------------------------|
| PROJECT | Georgia Institute of Technology |
| Contract No. | DMR2267-G-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 3301 |
| DEPTH | DATE |
| EL. | |
| LL. | PL 17 PI 19 |
| DESCRIPTION: Washed sand/clay | |
| Confined stress ratio, 0.6 | |
| Initial stress, 800 psi | |

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.44 % |
| VOID RATIO | e_0 | 0.60 |
| SATURATION | S | 41.91 % |
| DRY DENSITY | γ_d | 97.51pcf |
| WET DENSITY | γ | 105.15pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.69 cm |
| SPECIMEN HEIGHT | H_o | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE



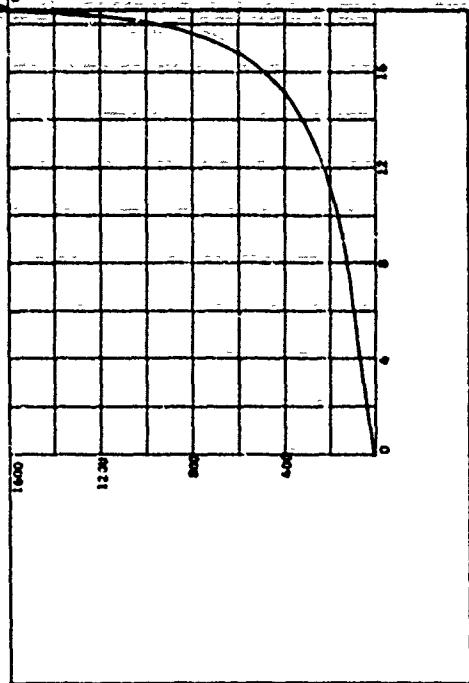
HYDROSTATIC PRESSURE, P, PSI

| | | | |
|----------------------------|------------|---------------------------------|-----|
| PROJECT | | Georgia Institute of Technology | |
| | | Contract No. INDAS3-67-C-0031 | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | DATE | |
| EL | PL | 17. | 19. |
| LL | | | |
| DESCRIPTION | | | |
| Machine Mill Clay | | | |
| Constant Stress Ratio, 0.6 | | | |
| Initial Pressure, 800 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | |
|------------------|--------------------------------------|
| PROJECT | General Institute of Technology 2-62 |
| Contract No. | B-1039-67-C-0051 |
| AREA | |
| BORING NO. | SAMPLE NO. 1312 |
| DEPTH EL. | DATE |
| LL. 36 | PL. 17 PI. 19 |
| | |
| DESCRIPTION | WEAK BENTONITE CLAY |
| CORED | STRESS RATIO, 0.6 |
| INITIAL PRESSURE | 1000 psi |

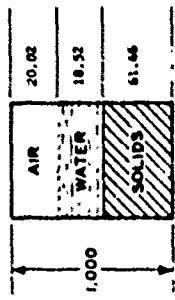
**DEVIATOR STRAIN, ϵ_d , PERCENT
TRIAXIAL SHEAR PHASE**



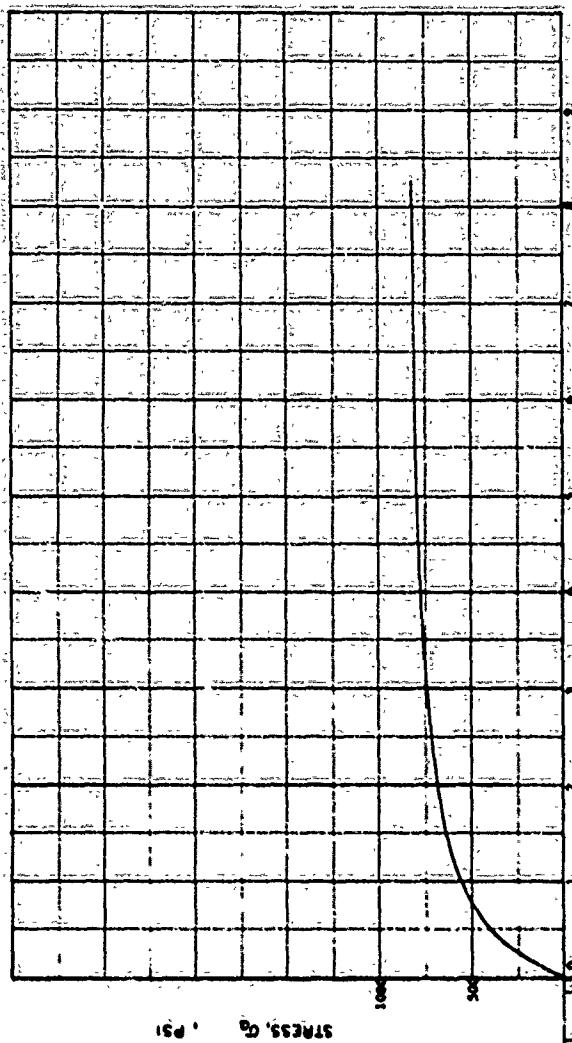
HYDROSTATIC PRESSURE, P , psi
VOLMETRIC STRAIN, $\delta V/V_0$, PERCENT

HYDROSTATIC PRESSURE, P , psi

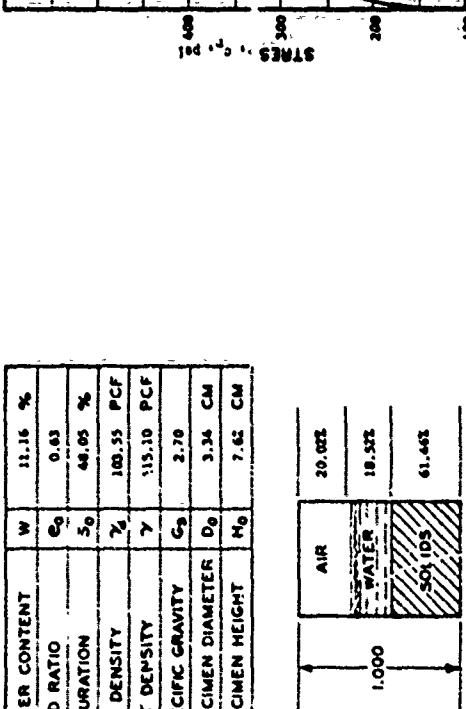
| | | |
|-------------------|----------|------------|
| WATER CONTENT | W | 11.16 % |
| VOID RATIO | e_0 | 0.63 |
| SATURATION | S_o | 48.05 % |
| DRY DENSITY | D_d | 103.55pcf |
| WET DENSITY | γ | 115.10 pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.74 cm |
| SPECIMEN HEIGHT | H_o | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE



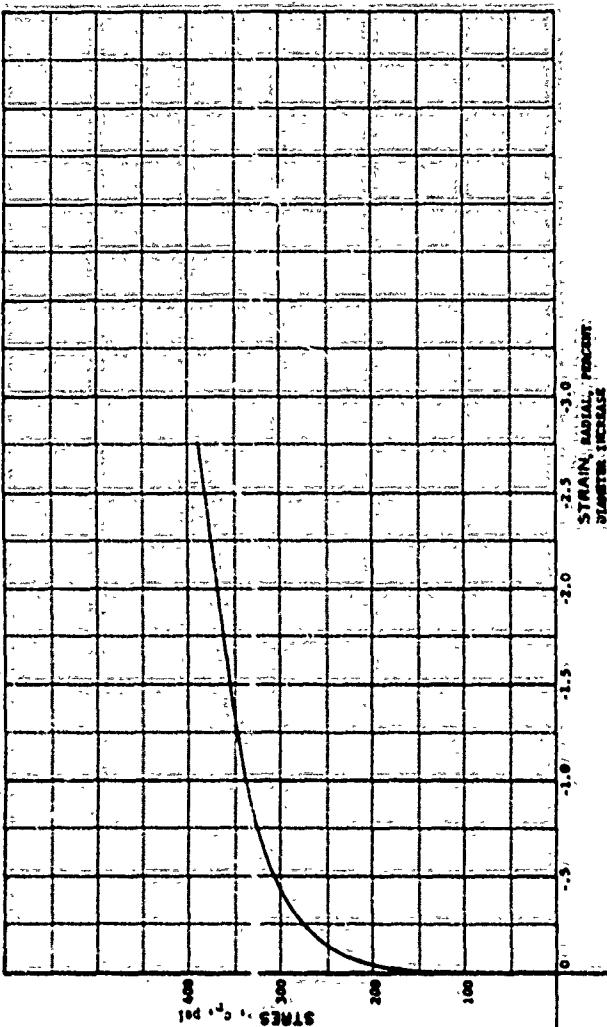
| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | w | 11.16 % |
| VOID RATIO | e ₀ | 0.63 |
| SATURATION | S ₀ | 44.05 % |
| DRY DENSITY | γ_d | 103.55pcf |
| WET DENSITY | γ | 115.10pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.34 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

300



STRAIN, RADIAL, PERCENT
STRAIN, INCHES, INCHES

| | |
|--------------|--------------------------------------|
| PROJECT | Georgia Institute of Technology S-02 |
| Contract No. | ME-99-017-C-0001 |
| AREA | |
| BORING NO. | SAMPLE NO. 312 |
| DEPTH EL | DATE |
| LL | PL |
| PI | 19 |

DESCRIPTION: *Loesslike silty clay*

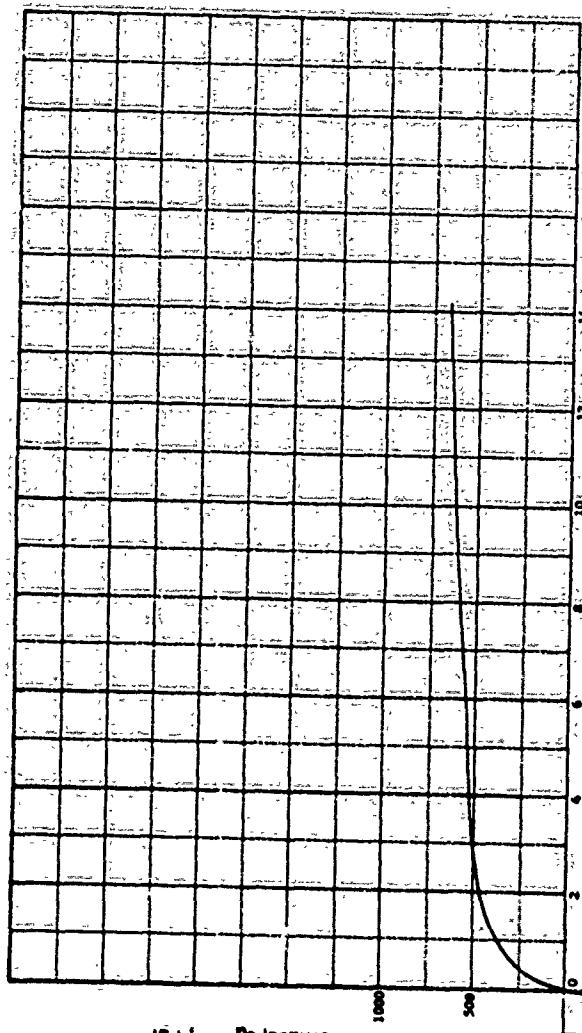
CONSISTENCY: *Very stiff*

CONSISTENT STRENGTH: *0.6*

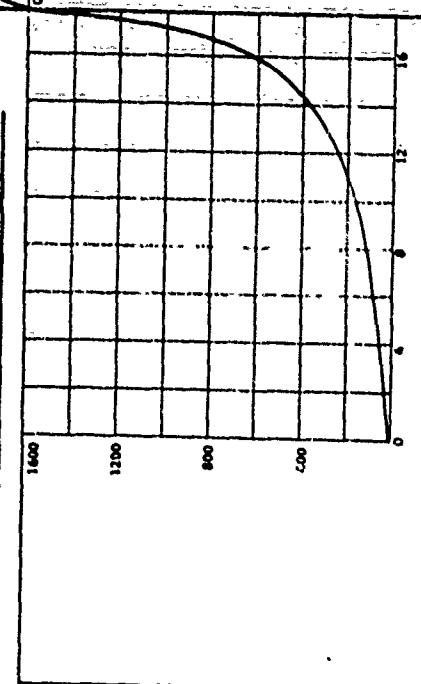
SETTLEMENT PRESSURE: *1000 psi*

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.71 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | s ₀ | 42.48 % |
| DRY DENSITY | γ_d | 93.19pcf |
| WET DENSITY | γ_w | 105.00 pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |

STRESS, σ, psi



HYDROSTATIC COMPRESSION PHASE



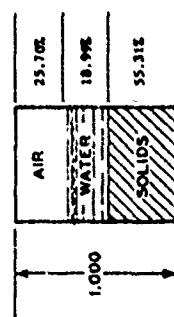
VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

HYDOSTATIC PRESSURE, P, PSI

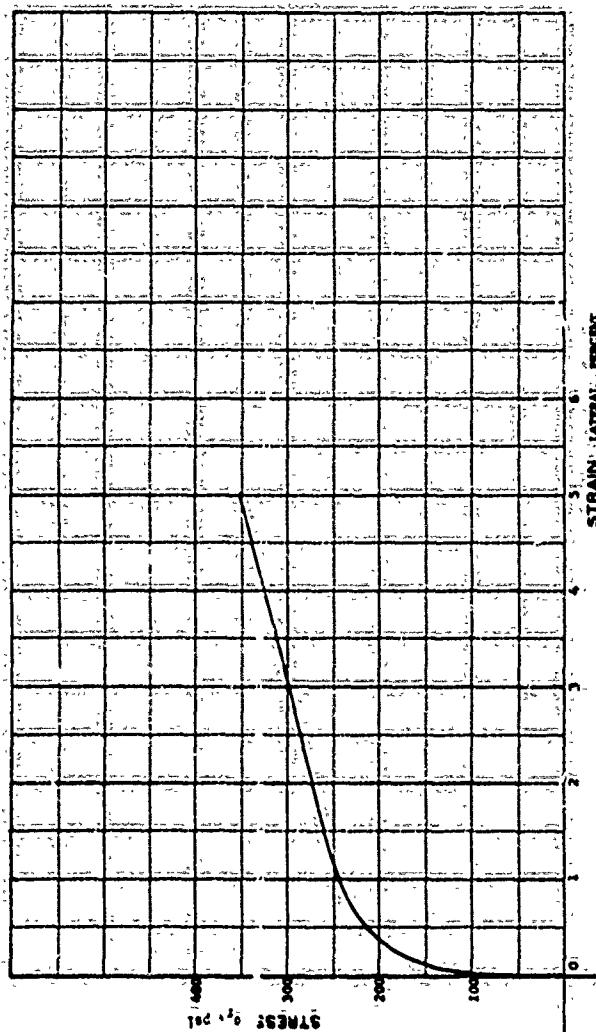
TOC

| | | | |
|--------------------------------|---------------------------------------|----|----|
| PROJECT | Georgia Institute of Technology A-602 | | |
| Contract No. DACA39-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 327 | | |
| DEPTH | DATE | | |
| EL | PL | PI | 19 |
| LL | 14 | | |
| DESCRIPTION: Weathered Bullock | | | |
| Constant Strain Ratio, 0.6 | | | |
| Total Pressure, 1600 psi | | | |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.71 % |
| VOID RATIO | e _v | 0.81 |
| SATURATION | s _s | 42.48 % |
| DRY DENSITY | γ_d | 93.19pcf |
| WET DENSITY | γ_w | 105.03pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |



HYDROSTATIC COMPRESSION PHASE



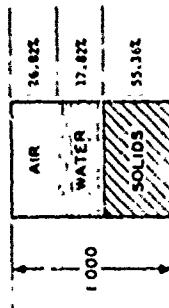
HYDROSTATIC PRESSURE, P, PSI

302

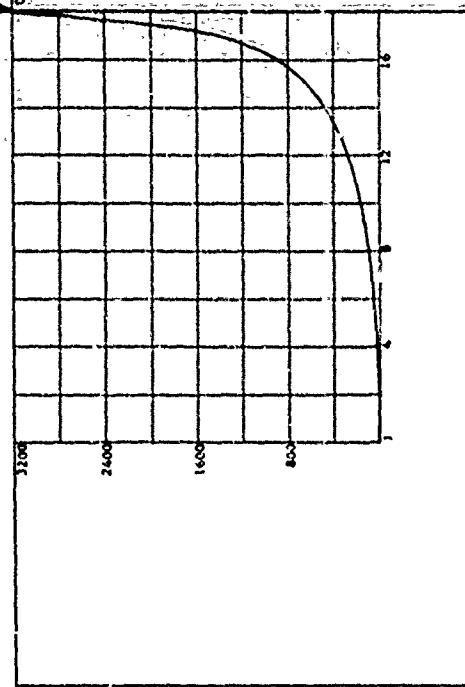
| | | | |
|---------------------------------|---------------------------------------|-----|-----|
| PROJECT | Geofill Institute of Technology 3-602 | | |
| Contract No. | TMCA39-97-C-0001 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 327 | | |
| DEPTH EL. | DATE: | | |
| LL | 26 | PL | 17 |
| | | PSI | 119 |
| DESCRIPTION: Natural silty clay | | | |
| Constant Stress Ratio: 0.6 | | | |
| Initial Pressure: 600 psi | | | |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.32 | % |
| VOID RATIO | e_0 | 0.81 | |
| SATURATION | S _o | 39.93 | % |
| DRY DENSITY | γ_d | 93.27 | pcf |
| WET DENSITY | γ_w | 106.39 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.41 | cm |

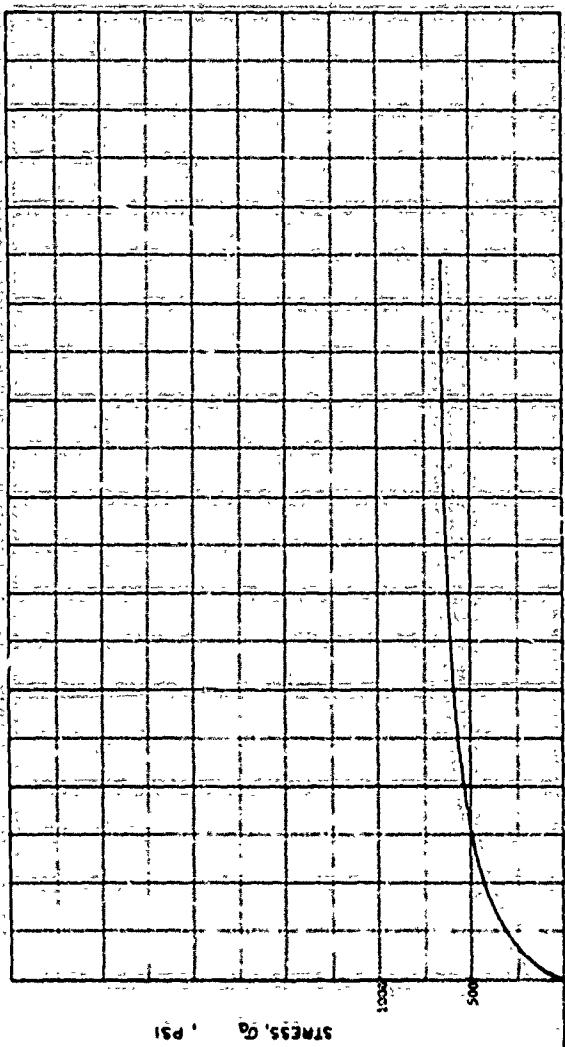


HYDROSTATIC COMPRESSION PHASE



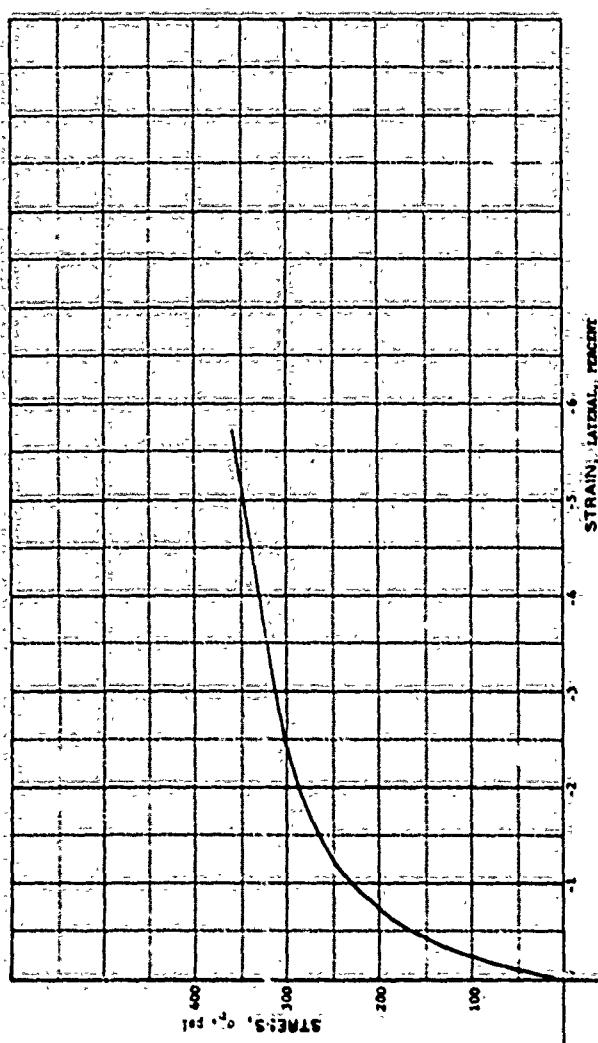
HYDROSTATIC PRESSURE, P, PSI

303



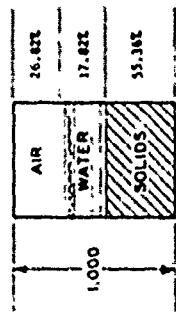
DEVIATORIC STRESS, σ_0 , PSI, PERCENT
TRIAXIAL SHEAR PHASE

| | | |
|--|-----------------------------|------|
| PROJECT | Bentonite Test Series 8-922 | |
| Contract No. MAC-9-47-C-9051 | | |
| AREA | | |
| BORING NO. | SAMPLE NO. | DATE |
| DEPTH EL. | | |
| LL | PL | PT |
| DESCRIPTION: <i>Loamy sand, silty clay</i> | | |
| Constant Stress Ratio, 0.6 | | |
| Initial Pressure, 3200 psi | | |



HYDROSTATIC COMPRESSION PHASE

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 11.92 % |
| VOID RATIO | e_0 | 0.81 |
| SATURATION | S_o | 35.93 % |
| DRY DENSITY | γ_d | 91.21pcf |
| WET DENSITY | γ | 104.39pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.30 cm |
| SPECIMEN HEIGHT | H_0 | 7.61 cm |



HYDROSTATIC PRESSURE, P , psi

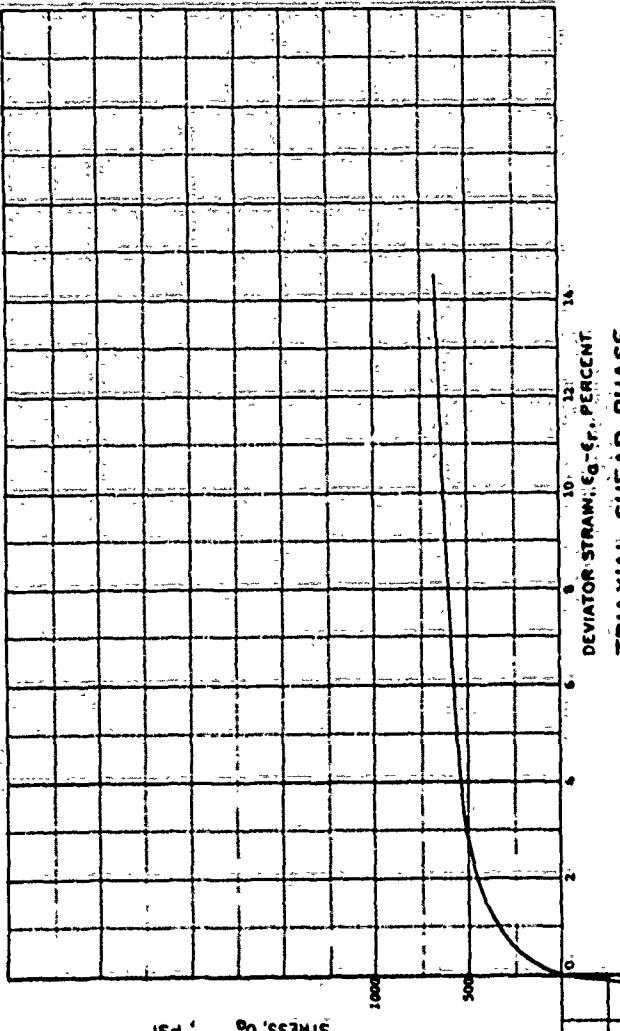
304

| | | | |
|---|---------------------------------------|------|----|
| PROJECT | Georgia Institute of Technology B-972 | | |
| Contract No. DA-232-67-C-0031 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | DATE | |
| DEPTH | | | |
| EL | | | |
| LL | PL | PI | 19 |
| DESCRIPTION: <u>Zachridge Millie clay</u> | | | |
| Constant Stress Ratio: 0.6 | | | |
| Initial Pressure: 3200 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.50 % |
| VOID RATIO | e ₀ | 0.60 |
| SATURATION | S ₀ | 41.99 % |
| DRY DENSITY | - | 70.40 PCF |
| WET DENSITY | - | 105.07 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |

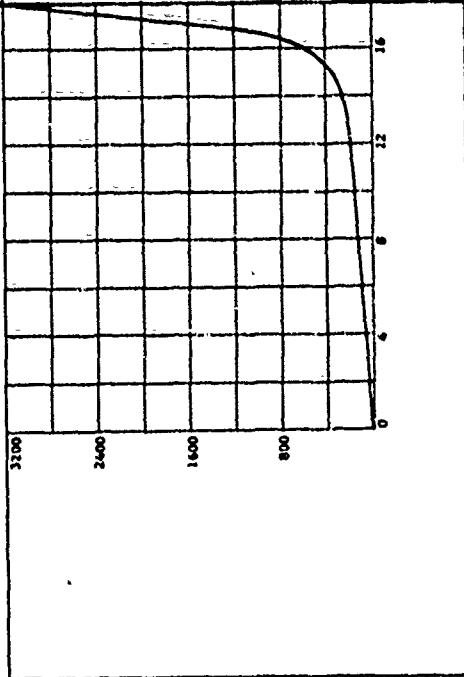
STRENGTH, Q_s, PSI



DEVIATOR STRAIN, $\epsilon_d - \epsilon_r$, PERCENT

TRIAXIAL SHEAR PHASE

HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

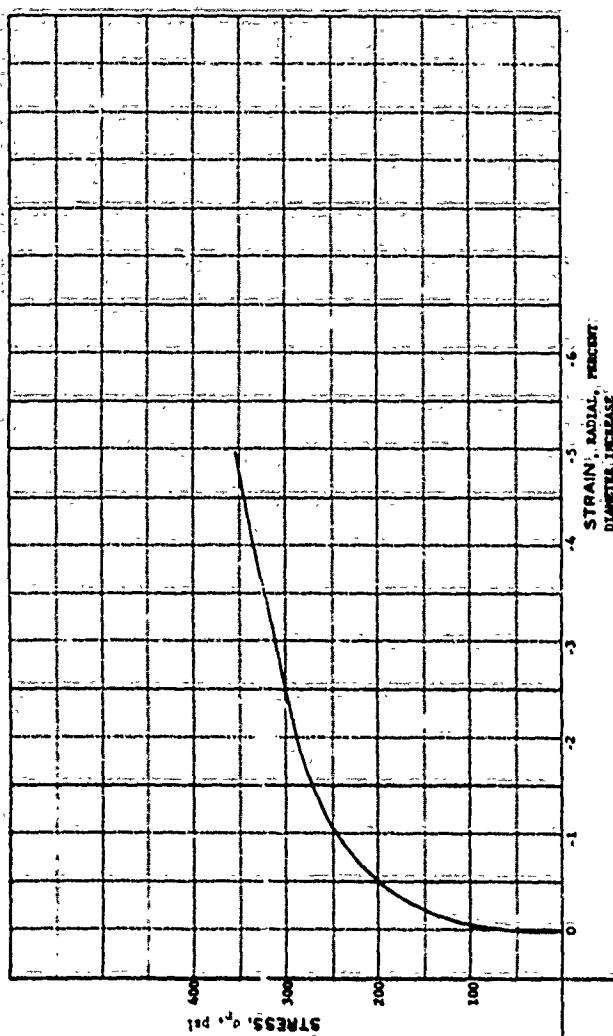
| | | | |
|------------------------------|--|------|----|
| PROJECT | Seattle Institute of Technology L-1021 | | |
| Contract No. DACSO-67-C-0031 | | | |
| AREA | | | |
| SORING NO. | SAMPLE NO. 319 | | |
| DEPTH EL. | DATE | | |
| L.L. | 36 | P.L. | 17 |
| | | P.L. | 19 |

DESCRIPTION: Section 511 Clay

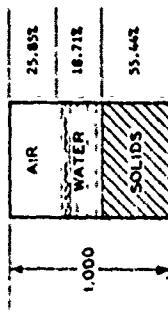
Constant Stress Ratio, 0.6

Initial Pressure, 3200 psi

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | w | 12.50 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S ₀ | 41.99 % |
| DRY DENSITY | γ_d | 93.40 PCF |
| WET DENSITY | γ_w | 105.07 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D _c | 3.50 CM |
| SPECIMEN HEIGHT | H _c | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE



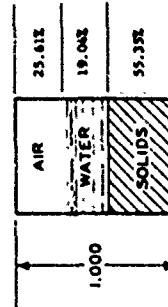
HYDROSTATIC PRESSURE, P, PSI

300

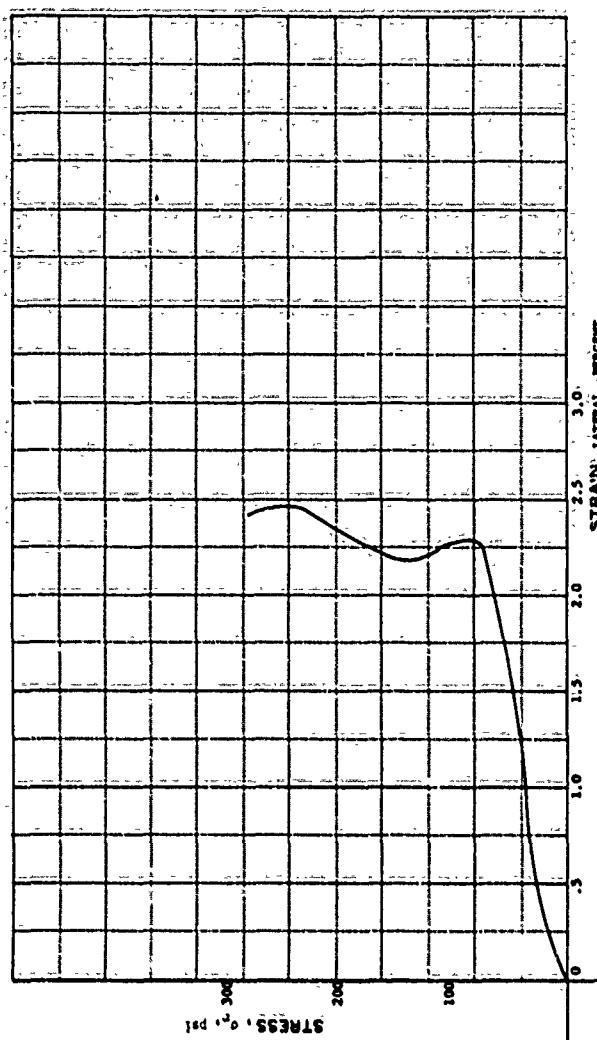
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------|---|------|----|
| PROJECT | Georgia Institute of Technology, E-602 Contract No. DACA19-62-C-0051 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | 3111 | |
| DEPTH | DATE | | |
| EL. | LL | PL | PI |
| | 36 | 17 | 19 |
| DESCRIPTION | Hatchie Hill Clay Constant Stress Ratio, 0.6 Initial Pressure, 3200 psi | | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 13.76 | % |
| VOID RATIO | e _o | 0.81 | |
| SATURATION | S _o | 42.66 | % |
| DRY DENSITY | γ_d | 93.25 | PCF |
| WET DENSITY | γ_w | 105.16 | PCF |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _o | 3.49 | CM |
| SPECIMEN HEIGHT | H _o | 7.63 | CM |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

307

| | |
|--|----------------|
| PROJECT: Georgia Institute of Technology B-602 | |
| Contract No.: DMR39-67-C-0021 | |
| AREA: | |
| BORE NO. | SAMPLE NO. 342 |
| DEPTH | DATE |
| EL | |
| LL | PL |
| 36 | 17 |
| | P _i |
| | 19 |

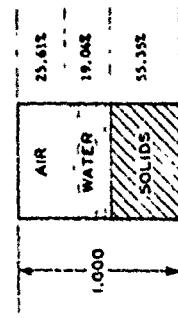
DESCRIPTION: Archdale Hill Clay

Constant Stress Ratio, 0.8

Initial Pressure, 0 psi

VOLMETRIC STRAIN, ΔV/V, PERCENT

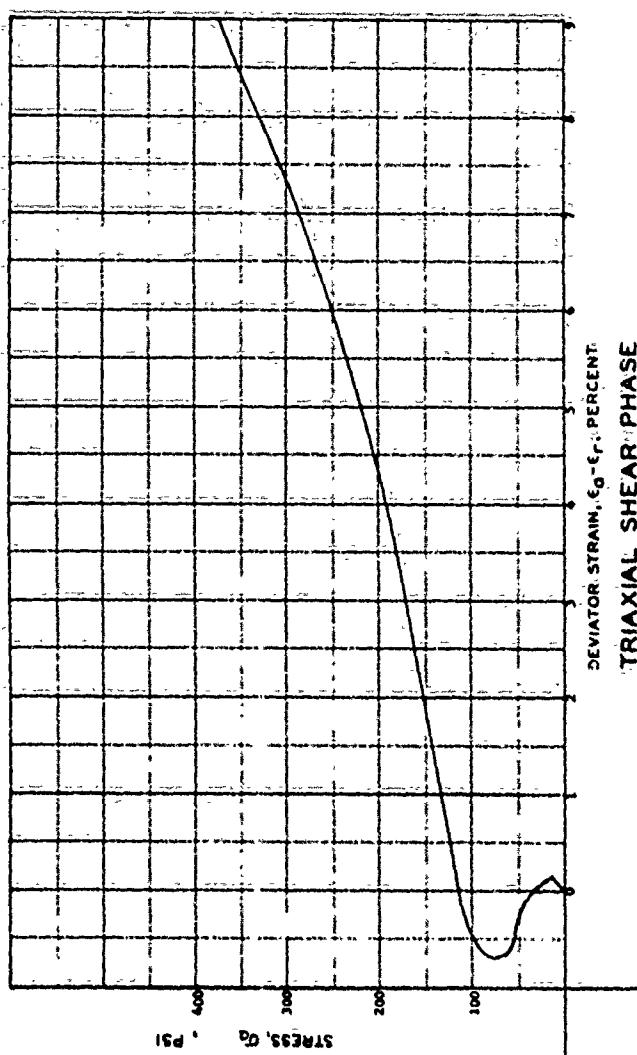
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.76 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S ₀ | 42.64 % |
| DRY DENSITY | γ_d | 9.25 PCF |
| WET DENSITY | γ_w | 105.14 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D | 2.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

308

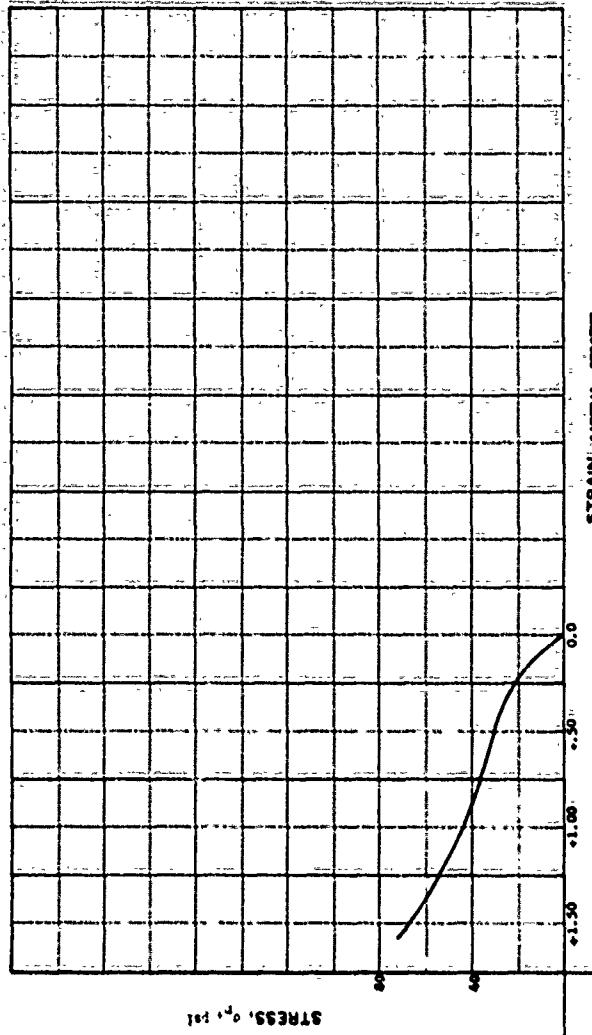


TRIAXIAL SHEAR PHASE

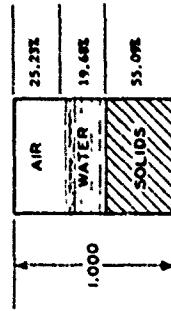
| | |
|---|----------------|
| PROJECT: George Institute of Technology I-602 | |
| Contract No. DKA19-67-C-0031 | |
| AREA: | |
| BORING NO. | SAMPLE NO. 142 |
| DEPTH: | DATE |
| EL. | PL. |
| LL. | 17 |
| | P1: 19 |
| DESCRIPTION: Weathered Shale Clay | |
| Constant Stress Ratio, 0.6 | |
| Initial Pressure, 0 psi | |

VOLUME STRAIN, ΔV/V₀, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 13.26 % |
| VOID RATIO | e ₀ | 0.82 |
| SATURATION | S ₀ | 43.83 % |
| DRY DENSITY | γ_d | 92.81 PCF |
| WET DENSITY | γ_w | 105.09 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.69 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE



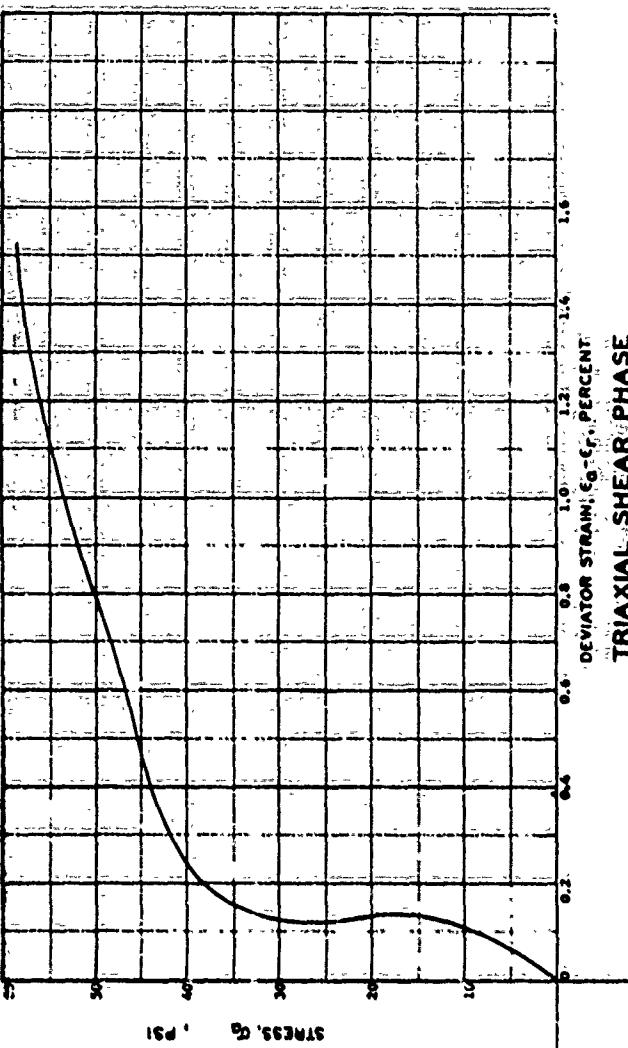
HYDROSTATIC PRESSURE, P, PSI

309

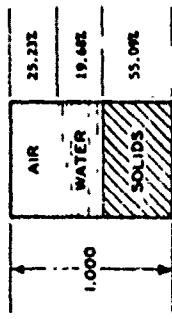
| | |
|---|-----------------|
| PROJECT: General Justification of Testimony | |
| Contract No. DCAAF-67-C-0031 | |
| AREA | SAMPLE NO.: 343 |
| BORING NO. | DATE: |
| DEPTH: EL. | PL. 17 |
| LL. | Pt. 19 |
| DESCRIPTION: Matching Hill Clay | |
| Compressive Stress Ratio: 0.8 | |
| Initial Pressure, Gage | |

VOLUMETRIC STRAIN, ΔV/V, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 13.24 % |
| VOID RATIO | e ₀ | 0.82 |
| SATURATION | S ₀ | 43.83 % |
| DRY DENSITY | D _d | 92.81pcf |
| WET DENSITY | D _w | 105.09pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 cm |



HYDROSTATIC COMPRESSION PHASE



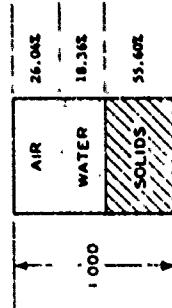
HYDROSTATIC PRESSURE, P, psi

310

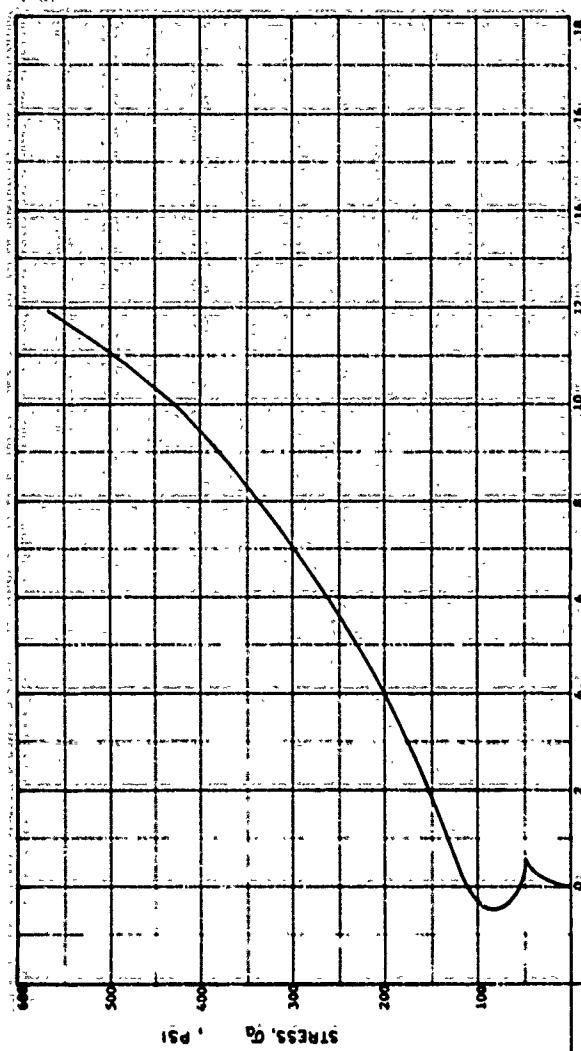
VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

| | |
|--|-----------------|
| PROJECT: Georgia Institute of Technology B-602 | |
| Concrete No. 602A9-67-C-0051 | |
| AREA: | SAMPLE NO.: 243 |
| BORING NO.: | DATE: |
| DEPTH EL: | PL |
| LL | W |
| P ₁ | 15' |
| DESCRIPTION: Weathered Atlantic Clay | |
| Compressive Strength Ratio, 0.81 | |
| Initial Pressure, 0 psi | |

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.23 | % |
| VOID RATIO | e_0 | 0.40 | |
| SATURATION | S_o | 41.36 | % |
| DRY DENSITY | γ_d | 90.49 | PCF |
| WET DENSITY | γ_w | 103.16 | PCF |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| OPEN-END DIAMETER | D_o | 3.49 | CM |
| SPECIMEN HEIGHT | H_o | 7.63 | CM |



HYDROSTATIC COMPRESSION PHASE



TRIAXIAL SHEAR PHASE

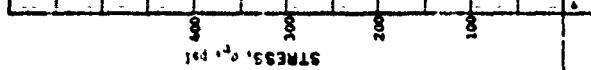
HYDROSTATIC PRESSURE, P_h , PSI

311

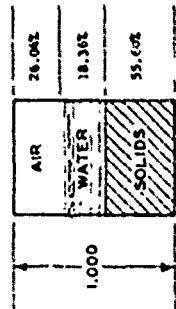
| | |
|--|---------------------------|
| PROJECT: Georgia Institute of Technology - 1-502 | |
| Contract No.: N6039-67-C-0051 | |
| AREA: | |
| BORING NO.: | SAMPLE NO.: 345 |
| DEPTH | DATE: |
| EL. | |
| LL. | PL. 17 P. ₁ 39 |
| | P. ₂ 39 |
| DESCRIPTION: Latching Bit/Cutter | |
| Constant Stress Factor: 0.3 | |
| Initial Pressure, Open | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.23 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S ₀ | 41.34 % |
| DRY DENSITY | D ₀ | 91.68 PCF |
| WET DENSITY | D _w | 103.16 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D _o | 3.69 CM |
| SPECIMEN HEIGHT | H _o | 1.63 CM |



HYDROSTATIC COMPRESSION PHASE



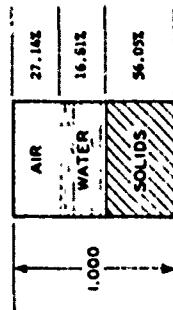
HYDROSTATIC PRESSURE, P, PSI

312

| | | | |
|--|------------|------|---------|
| PROJECT: Georgia Institute of Technology S-502 | | | |
| Contract No. DECA39-67-C-0051 | | | |
| AREA: | | | |
| BORING NO. | SAMPLE NO. | DATE | |
| LL | PL | 17 | P1 - 19 |
| DESCRIPTION: Wachusett Hill Clay | | | |
| Constant Stress Ratio, 0.8 | | | |
| Initial Pressure, 0 psi | | | |

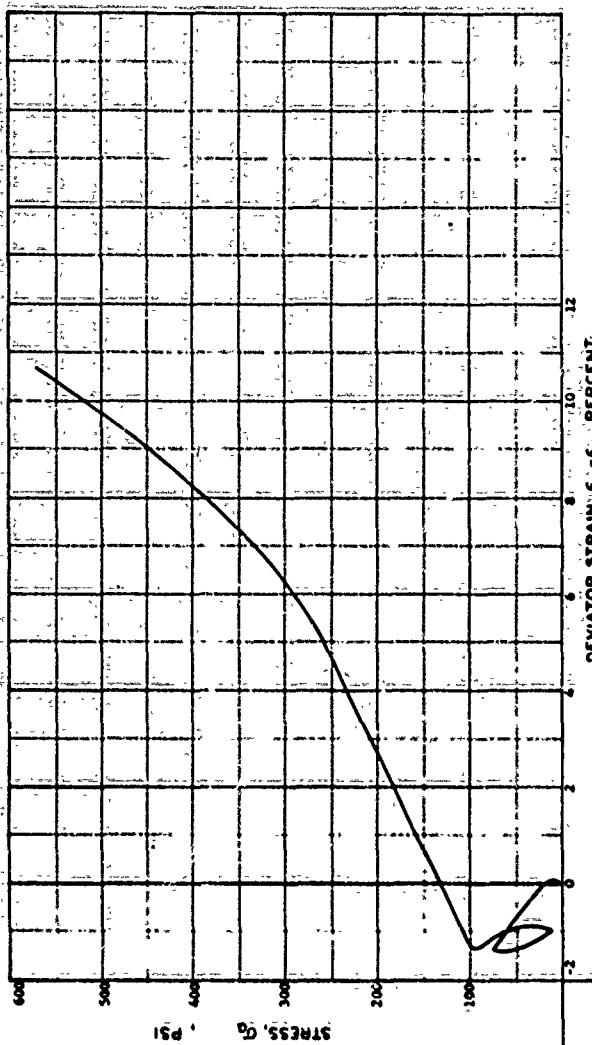
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | % | 11.11 | % |
| VOID RATIO | e_0 | 0.78 | |
| SATURATION | S_0 | 36.75 | % |
| DRY DENSITY | γ_d | 94.43 | pcf |
| WET DENSITY | γ_w | 104.42 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_0 | 3.69 | cm |
| SPECIMEN HEIGHT | H_0 | 7.63 | cm |



HYDROSTATIC COMPRESSION PHASE

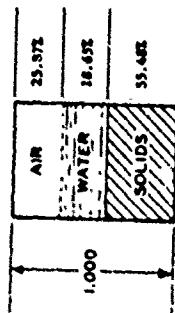
HYDROSTATIC PRESSURE, P , PSI



TRIAXIAL SHEAR PHASE

| | |
|---|---------------------------------|
| PROJECT | Concord Institute of Technology |
| Contract No. | MAC3947-C-0051 |
| AREA | |
| BORING NO: | |
| DEPTH: | |
| EL: | |
| LL: | |
| PL: | |
| DATE: | |
| PI: | |
| SAMPLE NO: | 349 |
| DESCRIPTION | Watchie's Hill Clay |
| Constant Stress Ratio, 0.8; Initial Pressure, 0 psi | |
| Cycle Shear, 0/32 | |

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 17.65 | % |
| VOID RATIO | e ₀ | 0.60 | |
| SATURATION | S _o | 41.68 | % |
| DRY DENSITY | γ _d | 52.67 | pcf |
| WET DENSITY | γ _w | 105.11 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.61 | cm |

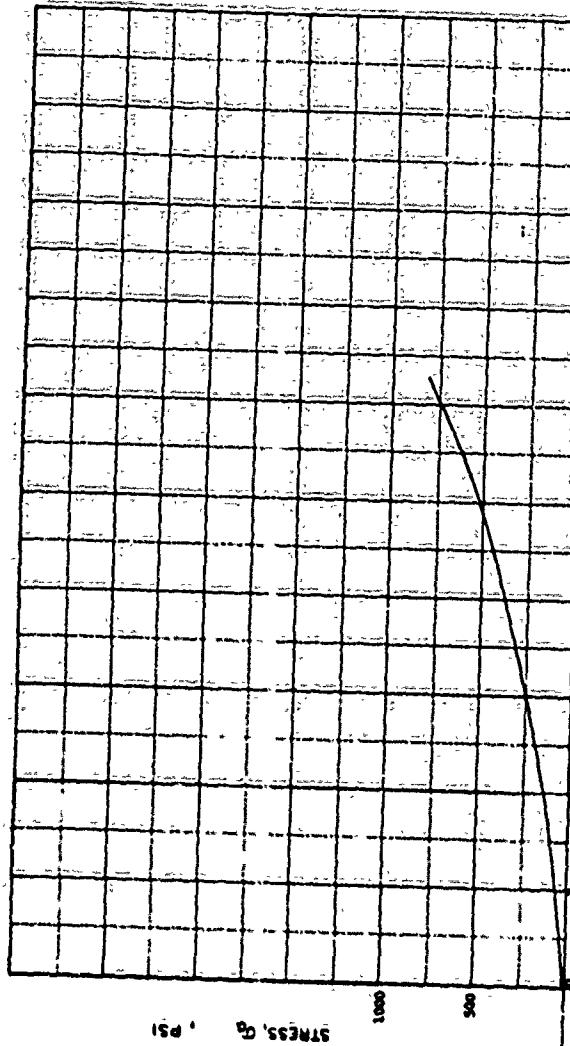


HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

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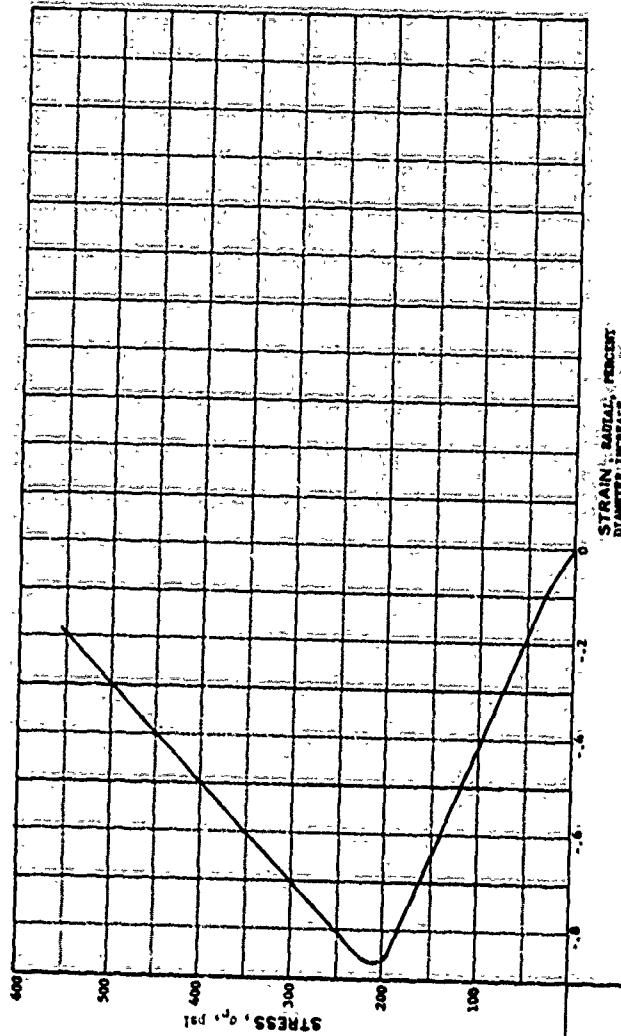
DEVIATOR STRAIN, ε_d, PERCENT
TRIAXIAL SHEAR PHASE



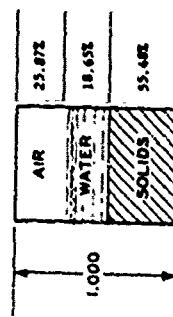
| | | | |
|-----------------------------------|---------------------------------------|----|--------|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. DACA39-67-C-0001 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 20 | | |
| DEPTH | DATE | | |
| EL. | PL. | 17 | PT. 19 |
| DESCRIPTION: Watchung Siliciclast | | | |
| Concrete Stress Ratio: 0.8 | | | |
| Initial Pressure: 107 psi | | | |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.65 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S ₀ | 41.88 | % |
| DRY DENSITY | γ_d | 93.47 | pcf |
| WET DENSITY | γ_w | 105.11 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.61 | cm |



HYDROSTATIC COMPRESSION PHASE



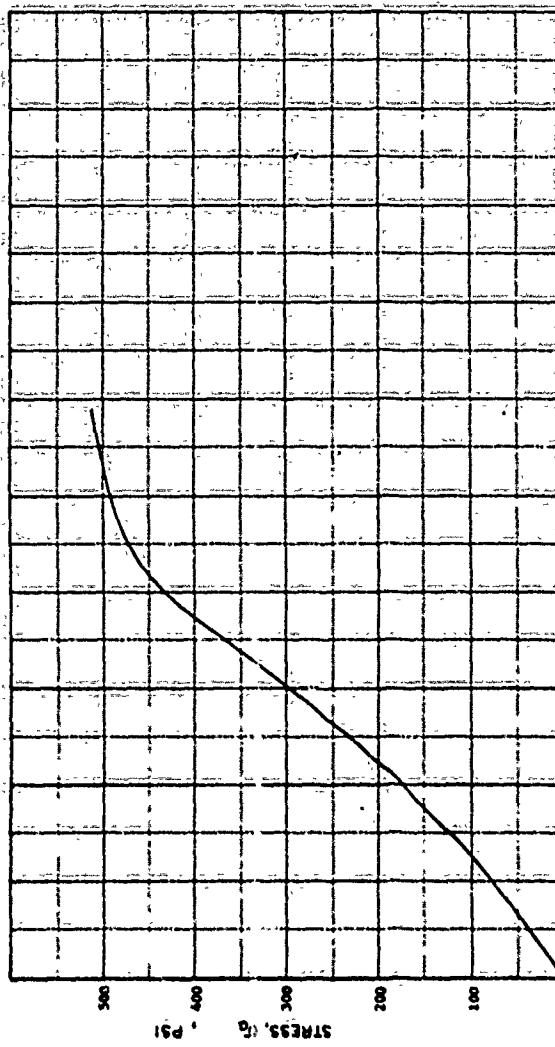
HYDROSTATIC PRESSURE, P, PSI

315

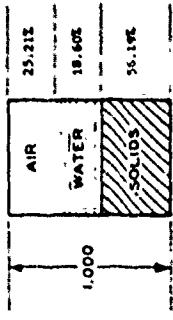
| | | | |
|----------------------------------|---------------------------------------|-----|----|
| PROJECT: | Georgia Institute of Technology B-002 | | |
| Contract No. DACA39-02-C-0021 | | | |
| AREA: | | | |
| BORING NO. | SAMPLE NO. | 293 | |
| DEPTH | DATE: | | |
| EL | LL | PL | 17 |
| DESCRIPTION: Selected Silts/Clim | | | |
| Constant Stress Ratio: 0.6 | | | |
| Initial Pressure: 100 psi | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|----------------------------------|----------------|------------|
| WATER CONTENT | W | 12.26 % |
| VOID RATIO | e ₀ | 0.78 |
| SATURATION | s ₀ | 62.46 % |
| DRY DENSITY | γ_d | 14.67 PCF |
| WET DENSITY | γ_w | 106.28 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER D ₀ | D ₀ | 3.47 CM |
| SPECIMEN HEIGHT H ₀ | H ₀ | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE



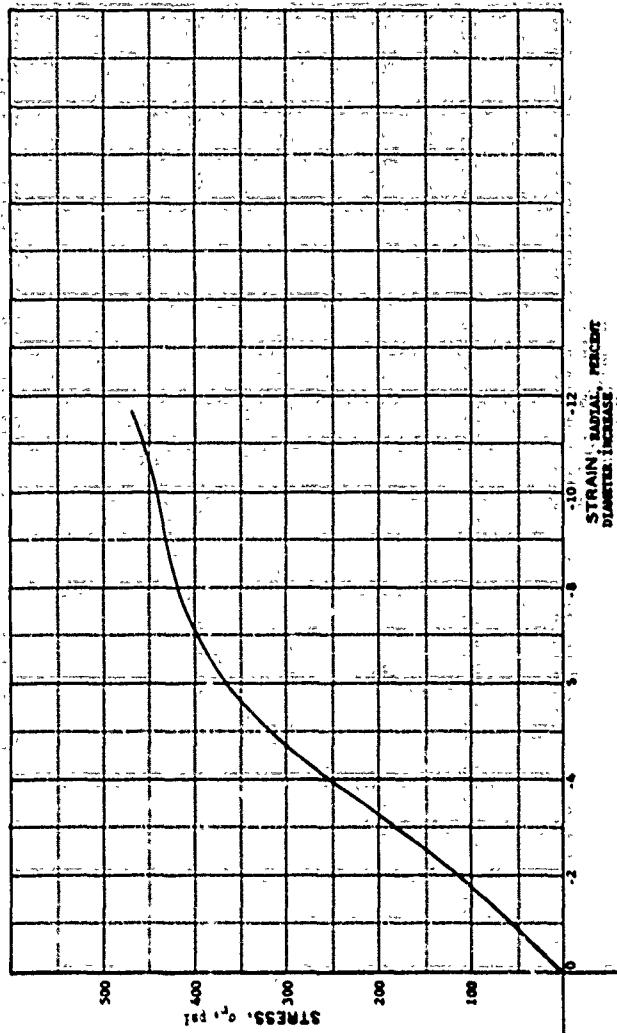
HYDROSTATIC PRESSURE, P, PSI

316

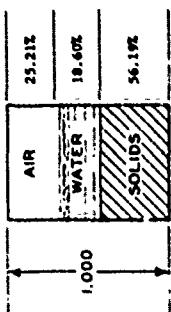
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|---------------------------------|---------------------------------------|-----|--------|
| PROJECT: | Georgia Institute of Technology B-602 | | |
| CoreSite No.: | INDIA 12-67-C-0021 | | |
| AREA: | | | |
| BORING NO.: | SAMPLE NO.: | 296 | |
| DEPTH: | DATE: | | |
| EL: | | | |
| LL: | PL | 17 | PT-191 |
| DESCRIPTION: Watchuse Mill Clay | | | |
| Constant Stress Ratio, 0.6 | | | |
| Initial Pressure, 1100 psi | | | |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.26 % |
| VOID RATIO | e ₀ | 0.78 |
| SATURATION | S ₀ | 42.46 % |
| DRY DENSITY | γ_d | 96.97pcf |
| WET DENSITY | γ' | 106.28pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.47 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

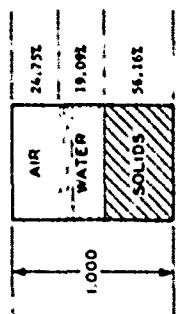
| | | | |
|--------------|--------------------------------------|------|------|
| PROJECT | Georgia Institute of Technology 2-62 | | |
| Contract No. | DACA39-67-C-0031 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. | | DATE |
| DEPTH | | | |
| EL | PL | P.L. | 19- |
| LL | 36 | | |

DESCRIPTION: Machining Hill Clay

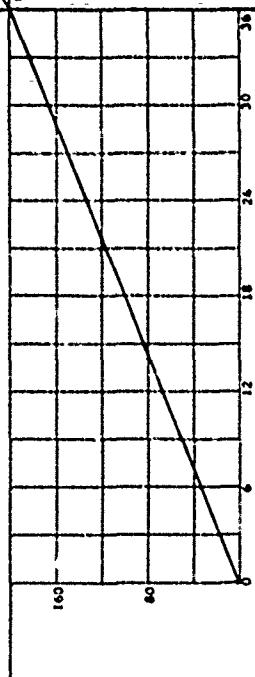
Constant Stress Ratio, 0.6

Initial Pressure, 100 psi

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.59 % |
| VOID RATIO | e ₀ | 0.78 |
| SATURATION | S ₀ | 43.34 % |
| DRY DENSITY | γ_d | 94.63pcf |
| WET DENSITY | γ_w | 106.34pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 2.47 cm |
| SPECIMEN HEIGHT | H ₀ | 7.43 cm |



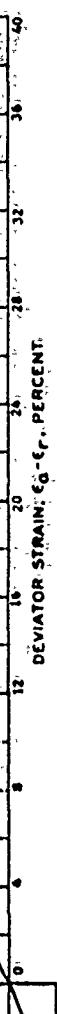
HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

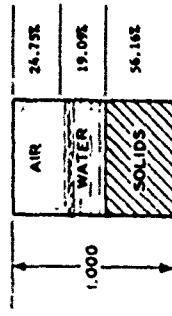
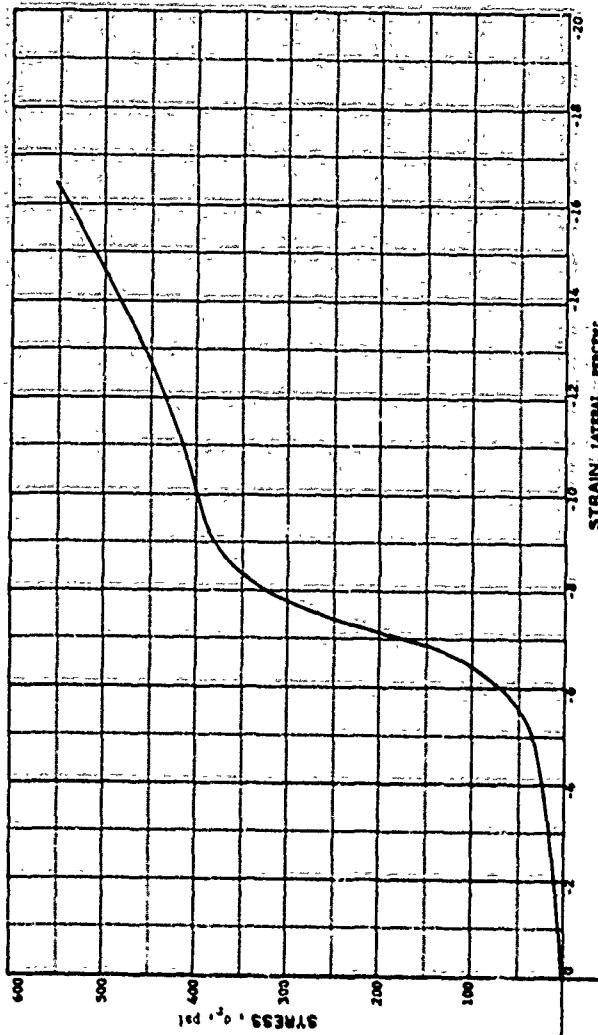
318

TRIAXIAL SHEAR PHASE



| | |
|---|---------------------------------|
| PROJECT: | Georgia Institute of Technology |
| Contract No.: | AG-237-67-C-0051 |
| AREA: | |
| BORING NO.: | SAMPLE NO.: 20 |
| DEPTH E.L.: | DATE: |
| LL. | PL. 17 PT. 19 |
| DESCRIPTION: | Watch Hill Clay |
| Constant Stress Ratio, 0.6; Initial Pressure, 200 psi | |

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.59 % |
| VOID RATIO | e _t | 0.78 |
| SATURATION | S _o | 43.54 % |
| DRY DENSITY | γ_d | 96.63 PCF |
| WET DENSITY | γ_w | 106.56 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.67 CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 CM |



HYDROSTATIC COMPRESSION PHASE

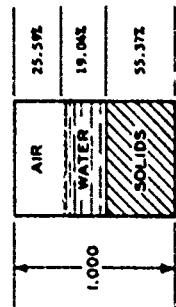
HYDROSTATIC PRESSURE, P, PSI

319

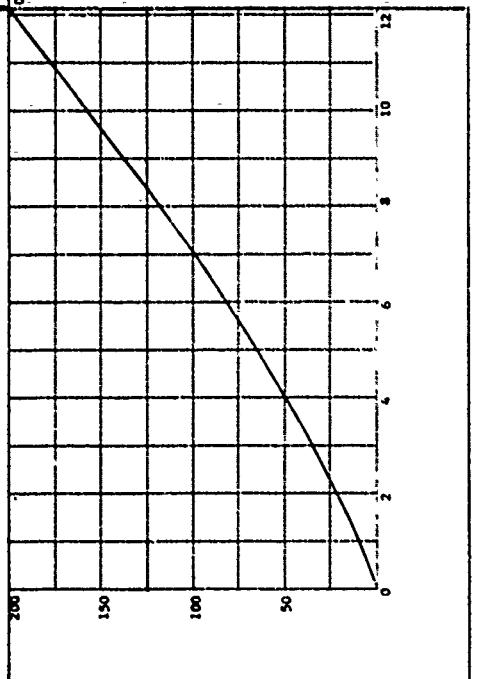
| | |
|---|-----------------|
| PROJECT: Georgia Institute of Technology | |
| Contract No.: 00000000-C-00001 | |
| AREA | |
| BORING NO: | SAMPLE NO.: 203 |
| DEPTH: | DATE |
| EL. | LL. |
| | PL. |
| | W. |
| | P1. |
| | 19 |
| DESCRIPTION: Weathering Marly Clay | |
| Constant Stress Ratio, 0.8; Initial Pressure, 200 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 12.73 % |
| VOID RATIO | e_0 | 0.81 |
| SATURATION | S_o | 42.67 % |
| DRY DENSITY | γ_d | 92.30 PCF |
| WET DENSITY | γ | 105.18 PCF |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.49 CM |
| SPECIMEN HEIGHT | H_o | 7.63 CM |

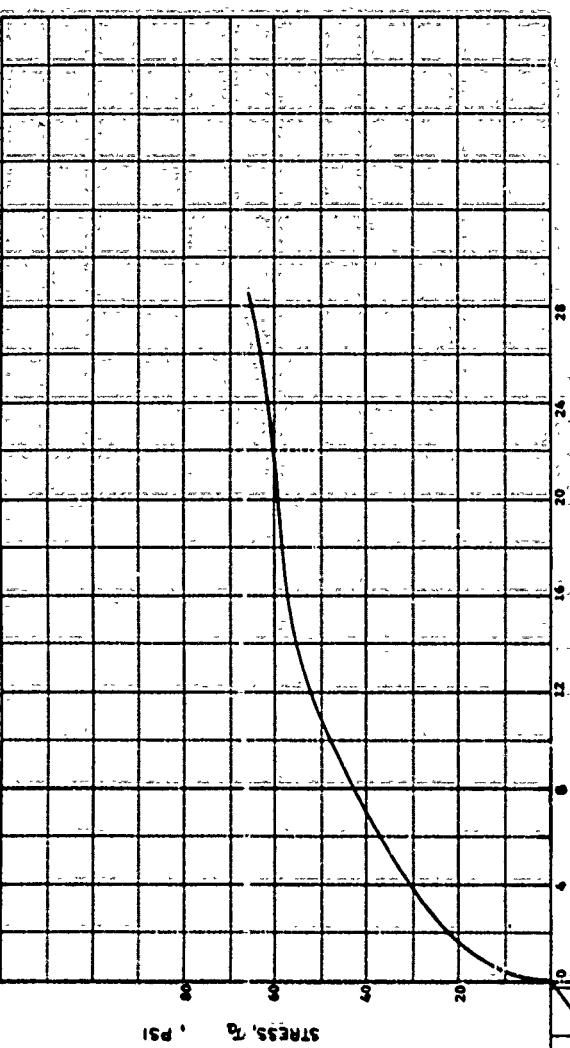


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P , psi

320



TRIAXIAL SHEAR PHASE

| | |
|--------------|--|
| PROJECT | Geotextile Institute of Technology, B.C. |
| Contract No. | BCG32-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 202 |
| DEPTH EL | DATE |
| LL 36 | PL 17 |
| | PL 19 |

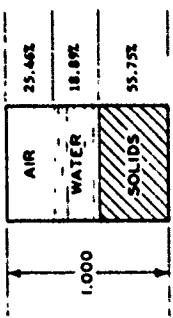
DESCRIPTION: *Mudstone*. *MUDCLAY*.

Compressive Stress Ratio, 0.8.

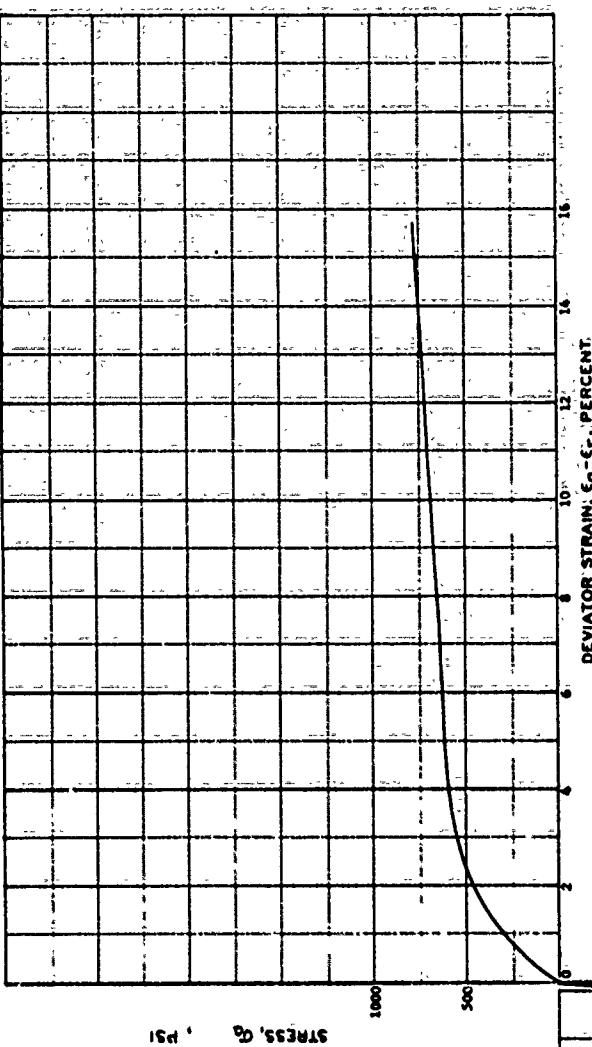
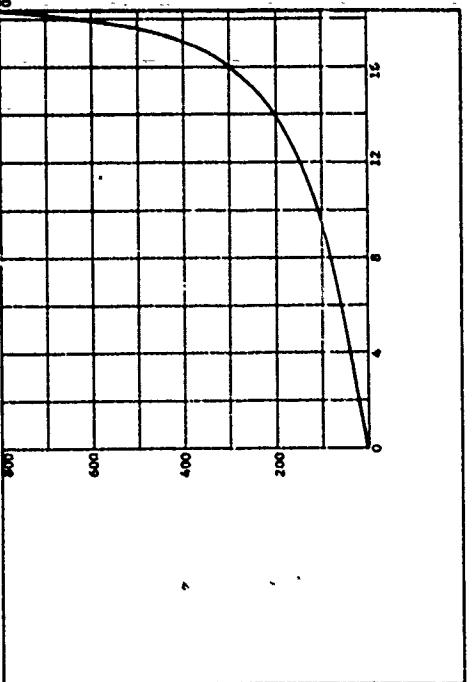
Initial Pressure, 200 psi.

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.55 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | s ₀ | 42.69 | % |
| DRY DENSITY | γ_d | 93.92 | pcf |
| WET DENSITY | γ_w | 105.71 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| DRIVEN DIAMETER | D ₀ | 3.48 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |



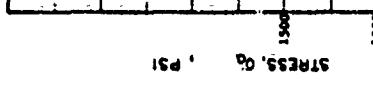
HYDROSTATIC COMPRESSION PHASE



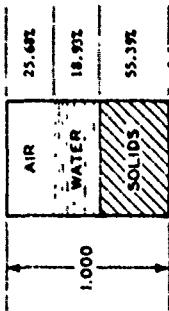
TRIAXIAL SHEAR PHASE

| | |
|------------------------------|---------------------------------------|
| PROJECT | Georgia Institute of Technology B-402 |
| CHIEF INVESTIGATOR | DR. C. G. SARKISIAN |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL. | |
| LL | 36 |
| PL | 17 |
| PT | 19 |
| DATE | |
| SAMPLE NO. 317 | |
| DESCRIPTION: Watch Hill Clay | |
| Constant Stress Ratio: 0.6 | |
| Initial Pressure: 800 psi | |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.66 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S ₀ | 42.44 % |
| DRY DENSITY | γ_d | 93.32pcf |
| WET DENSITY | γ_w | 105.13pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |



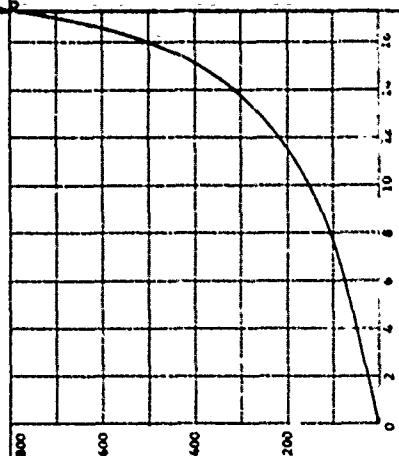
HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

322

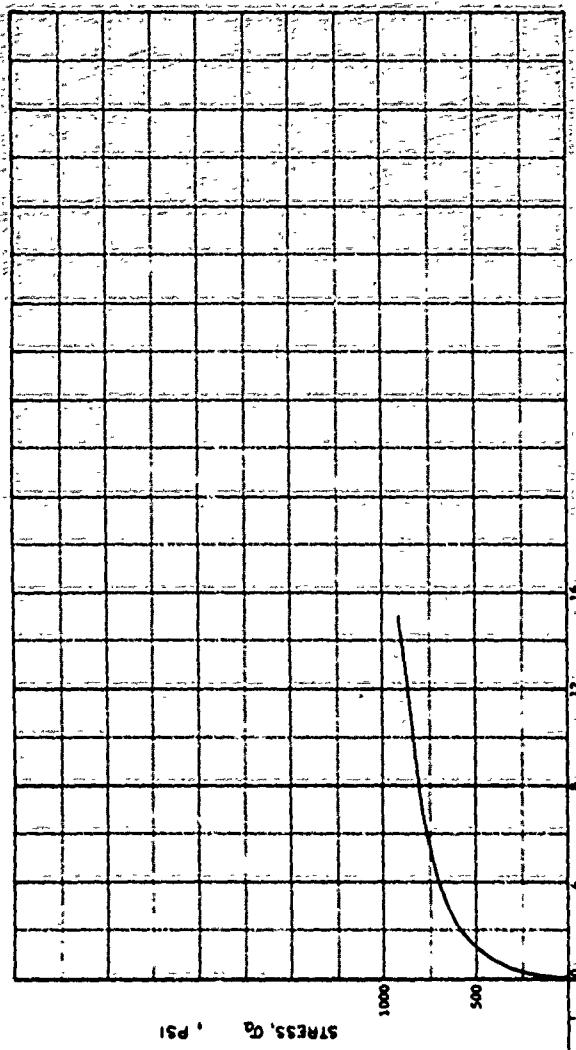
TRIAXIAL SHEAR PHASE



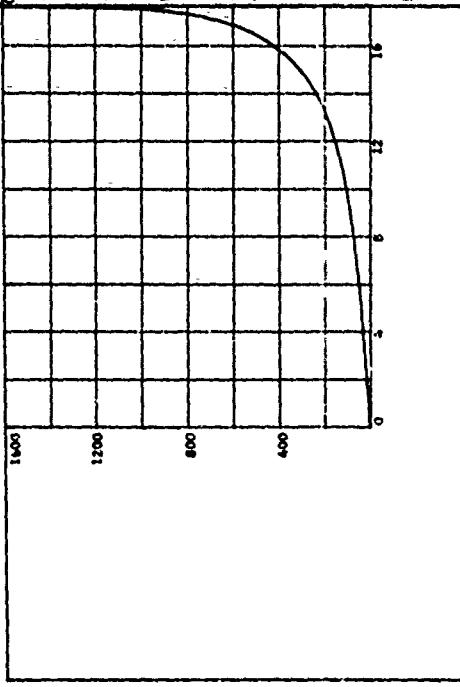
VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | |
|--|-----------------|
| PROJECT: Georgia Institute of Technology B-502 | |
| Contract No. NACA 3-67-C-0021 | |
| AREA: | |
| BORING NO. | SAMPLE NO. 3301 |
| DEPTH | DATE |
| EL. | |
| DESCRIPTION: Weatherill Clay | |
| Constant Stroke Ratio, 0.6 | |
| Initial Pressure, 1000 psi | |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 13.05 % |
| VOID RATIO | e ₀ | 0.81 |
| SATURATION | S ₀ | 43.62 % |
| DRY DENSITY | γ _d | 93.19pcf |
| WET DENSITY | γ | 105.35pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |



TRIAXIAL SHEAR PHASE



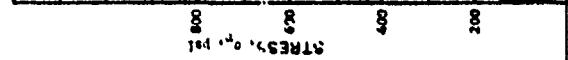
HYDROSTATIC PRESSURE, P, psi

323

| | | | |
|-------------|--|----------------|----|
| PROJECT | Georgia Institute of Technology, S-602 | | |
| | Contract No. DASG9-67-C-0031 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 316 | | |
| DEPTH | DATE | | |
| EL. | | | |
| LL | 36 | PL. | 17 |
| | | P ₁ | 19 |
| DESCRIPTION | Machining Mastic Clay | | |
| | Consolidation Stress Ratio, Q/S | | |
| | Saturation Pressure, 1600 psi | | |

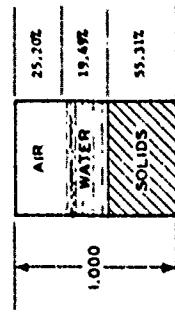
| | |
|-------------------|-------------------------------|
| WATER CONTENT | $W = 13.05\%$ |
| VOID RATIO | $e_0 = 0.81$ |
| SATURATION | $S_0 = 43.62\%$ |
| DRY DENSITY | $\gamma_d = 92.19 \text{pcf}$ |
| WET DENSITY | $\gamma = 105.35 \text{pcf}$ |
| SPECIFIC GRAVITY | $G_s = 2.70$ |
| SPECIMEN DIAMETER | $D_o = 3.49 \text{ cm}$ |
| SPECIMEN HEIGHT | $H_o = 7.62 \text{ cm}$ |

STRESS, σ , psi



STRAIN RADIAL,
DIAMETER INCREASE

HYDROSTATIC COMPRESSION PHASE



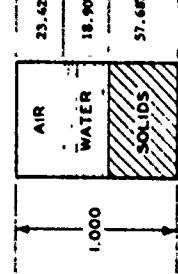
HYDROSTATIC PRESSURE, P , psi

324

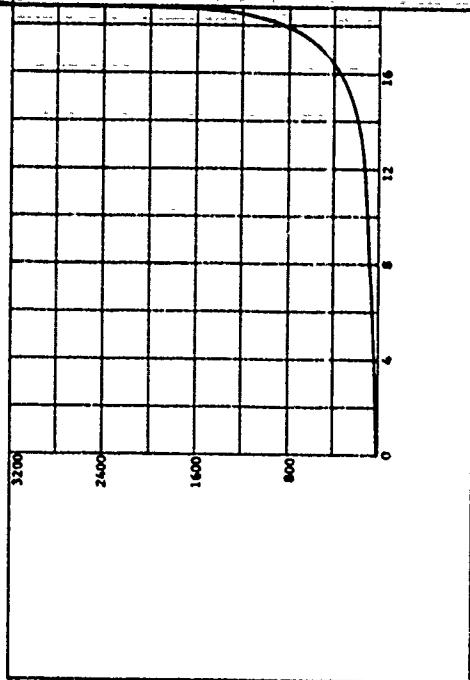
| PROJECT | Georgia Institute of Technology B-602 Contract No.: DMAA39-67-C-0031 | | |
|-------------|---|-------|-------|
| AREA | | | |
| BORING NO. | SAMPLE NO. 316 | DATE: | |
| DEPTH EL | | | |
| LL | 36 | PL | 17 |
| | | | PL 19 |
| DESCRIPTION | Michigan Mill Clay | | |
| | Constant Stress Ratio, 0.8 | | |
| | Initial Pressure, 1600 psi | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.16 | % |
| VOID RATIO | e ₀ | 0.73 | |
| SATURATION | S _o | 44.67 | % |
| DRY DENSITY | γ_d | 97.19 | pcf |
| WET DENSITY | γ_w | 108.30 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 5.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |

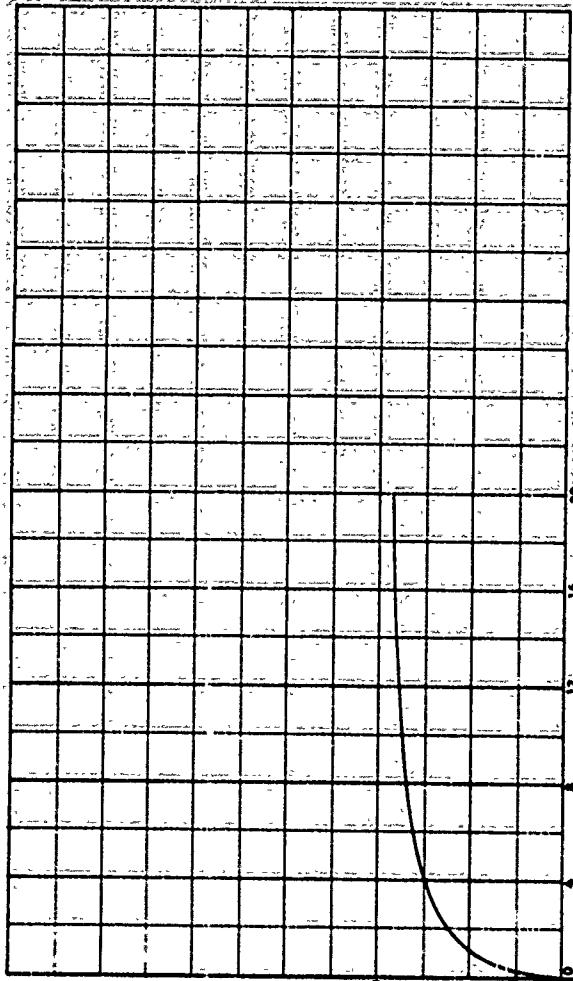


HYDROSTATIC COMPRESSION PHASE



VOLUMETRIC STRAIN, AV/V_0 - PERCENT

STRESS, G_a, psi

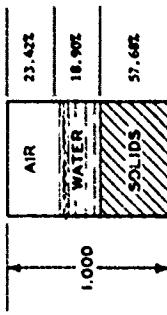


TRIAXIAL SHEAR PHASE

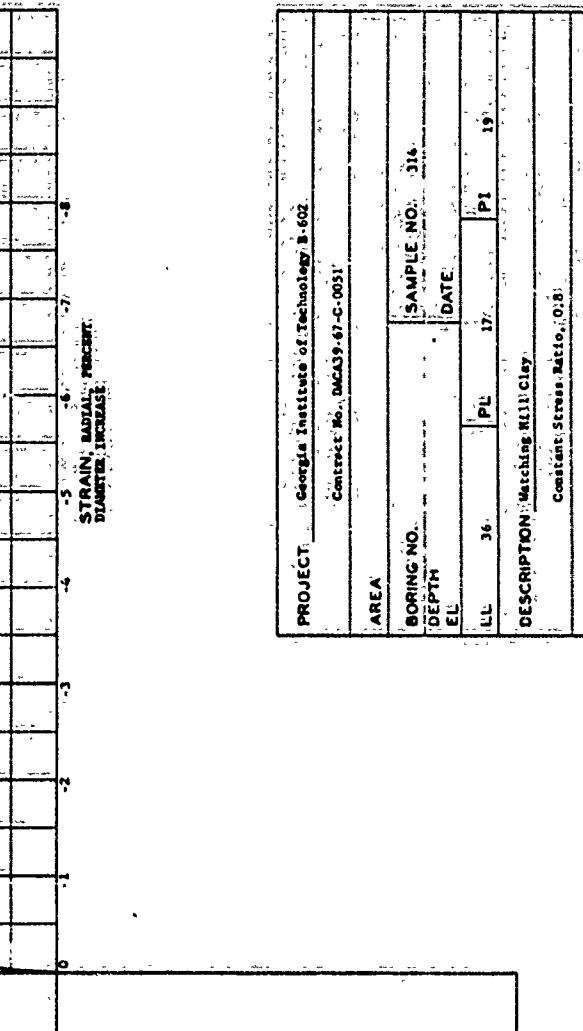
DEVIATOR STRAIN, $G-a$, PERCENT

| | | | |
|-----------------------------------|---------------------------------------|-----|------|
| PROJECT | Georgia Institute of Technology 3-602 | | |
| Contract No. | BIAUS-67-C-0051 | | |
| Area: | | | |
| BORING NO. | SAMPLE NO. 316 | | |
| DEPTH | LL | PL | DATE |
| EL | .36 | .17 | 19- |
| DESCRIPTION: Weathered Bluff clay | | | |
| Cohesion Stress Ratio, 0.6 | | | |
| Initial Pressure, 3200 psi | | | |

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 12.16 % |
| VOID RATIO | e_0 | 0.73 |
| SATURATION | S_0 | 44.67 % |
| DRY DENSITY | γ_d | 97.19 PCF |
| WET DENSITY | γ_w | 108.96 PCF |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_0 | 3.49 CM |
| SPECIMEN HEIGHT | H_0 | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE

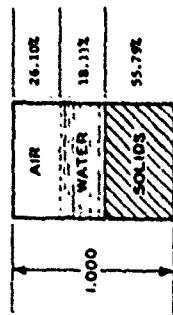


HYDROSTATIC PRESSURE, P, PSI

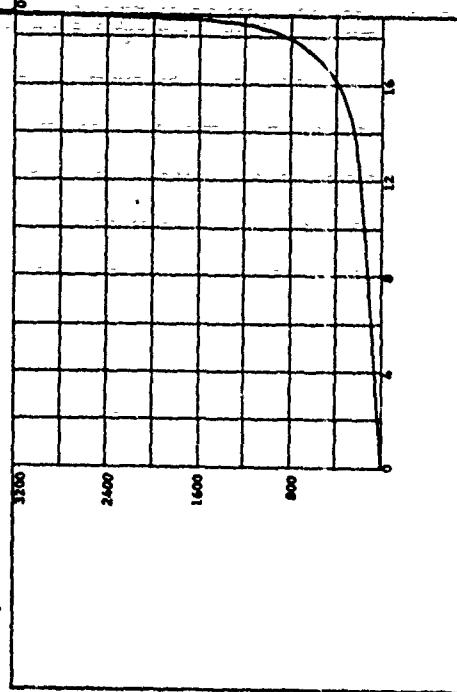
| PROJECT | | Georgia Institute of Technology E-602 | |
|---------------------------------------|-------------|---------------------------------------|------|
| Contract No. | | DA-39-67-C-0051 | |
| AREA | | | |
| BORING NO. | DEPTH EL | SAMPLE NO. | DATE |
| LL | 36 | PL | 17 |
| | | | P1 |
| | | | 19 |
| DESCRIPTION Watchung Hill Clay | | | |
| Constant Stress Ratio, 0.8 | | | |
| Initial Pressure, 3200 psi | | | |

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.02 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S ₀ | 60.97 % |
| DRY DENSITY | γ _d | 56.00pcf |
| WET DENSITY | γ _w | 105.30pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.50 cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 cm |

STRESS, σ, psi

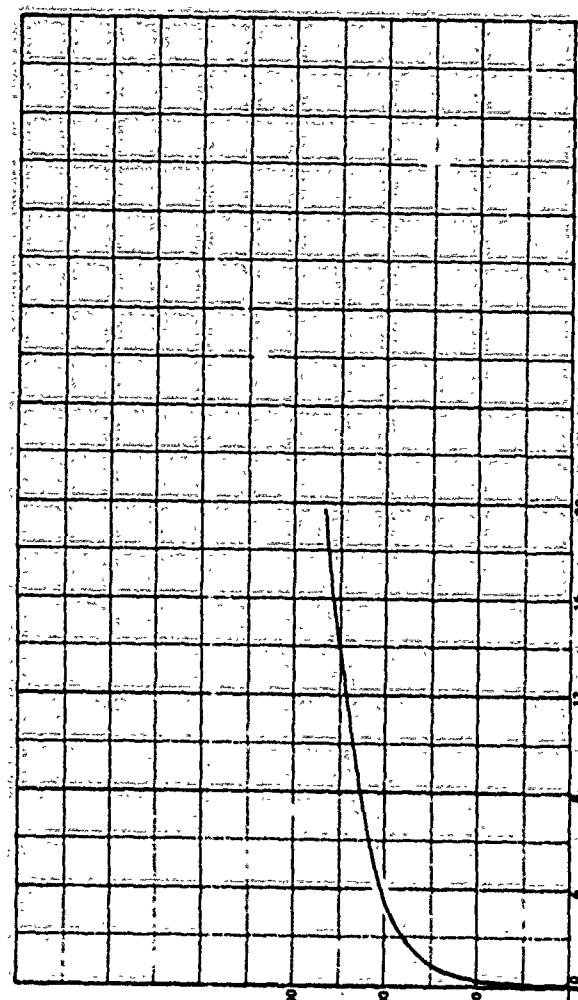


HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

327



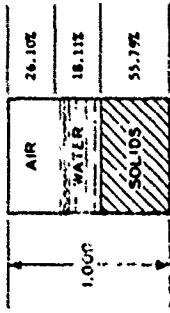
DEVIATOR STRAIN, E_q, PERCENT
TRIAXIAL SHEAR PHASE

| | | |
|--------------|--------------------------------------|-------|
| PROJECT | Geotechnical Institute of Technology | I-607 |
| Contract No. | DOA99-97-C-0031 | |
| AREA | | |
| BORING NO. | SAMPLE NO. 331 | |
| DEPTH EL | DATE | |
| LL | PL | P1 |
| 10 | 12 | 14 |
| 12 | 14 | 16 |
| 14 | 16 | 18 |
| 16 | 18 | 20 |

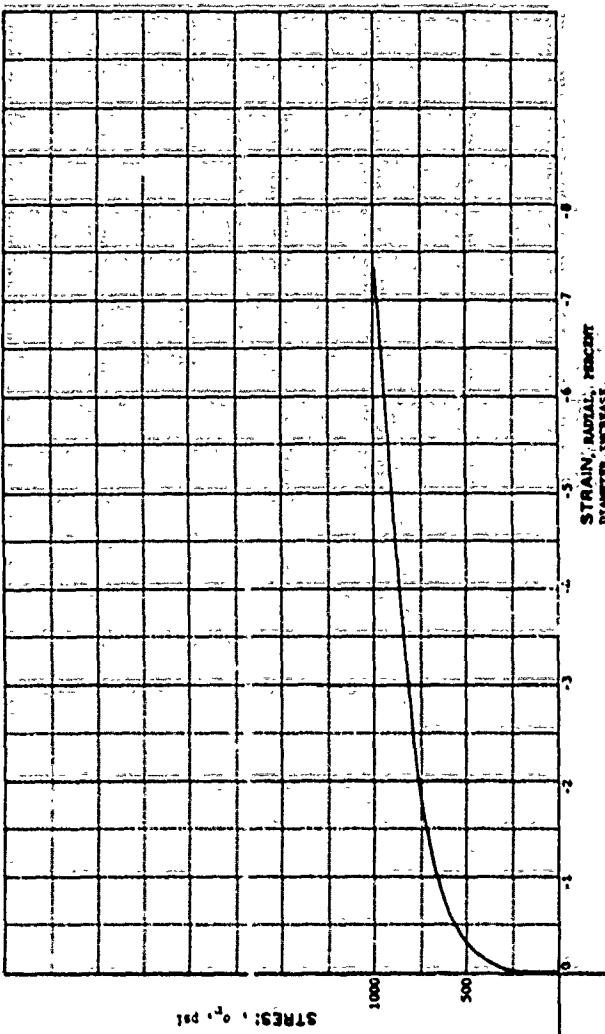
DESCRIPTION: Muckong Hill Clay
Constant Stress Ratio: 0.6
Initial Pressure: 3000 psi

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.02 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S ₀ | 40.97 | % |
| DRY DENSITY | γ _d | 96.00 | pcf |
| WET DENSITY | γ _w | 105.30 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |



HYDROSTATIC COMPRESSION PHASE

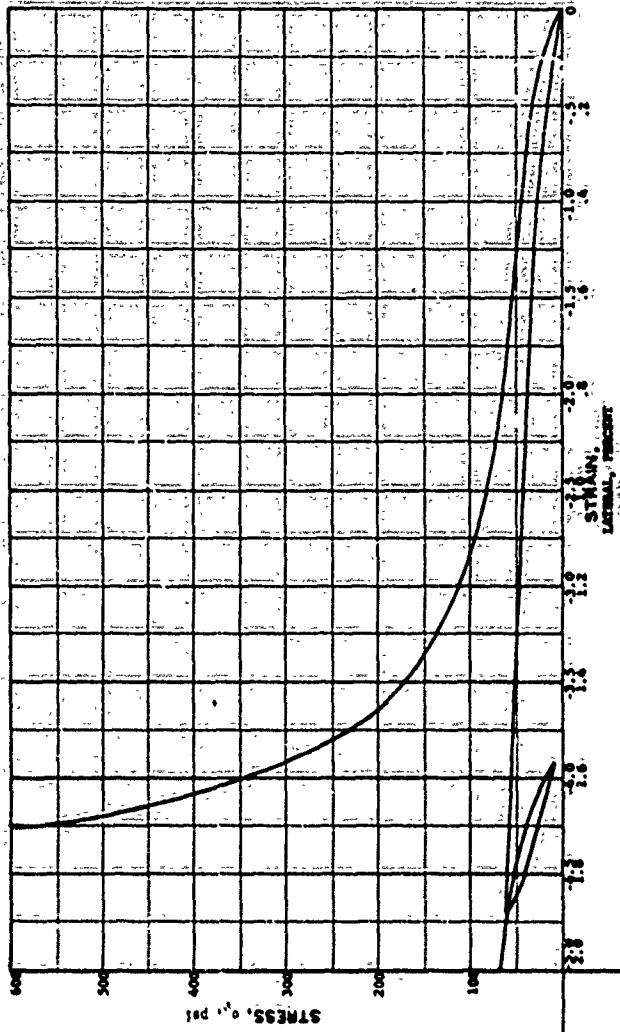


HYDROSTATIC PRESSURE, σ_0 , PSI

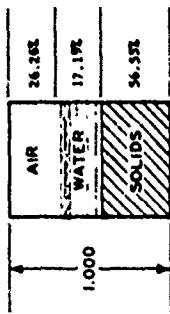
328

| | | | |
|---------------------------------|---------------------------------------|----|----|
| PROJECT | Georgia Institute of Technology S-602 | | |
| Contract No. NAG-19-67-C-0051 | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 31: | | |
| DEPTH: | DATE | | |
| EL | 36 | PL | 17 |
| | | PL | 18 |
| DESCRIPTION: Watchman Hill clay | | | |
| Constant Stress Ratio, 0.8 | | | |
| Initial Pressure, 3100 psi | | | |

VOLMETRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 11.2% |
| VOID RATIO | e_0 | 0.77 |
| SATURATION | S_o | 39.57 % |
| DRY DENSITY | γ_d | 95.21pcf |
| WET DENSITY | γ_w | 106.00pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.69 cm |
| SPECIMEN HEIGHT | H_o | 7.59 cm |



HYDROSTATIC COMPRESSION PHASE

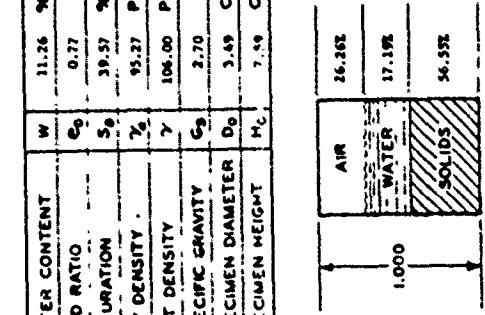
HYDROSTATIC PRESSURE, P, PSI

329

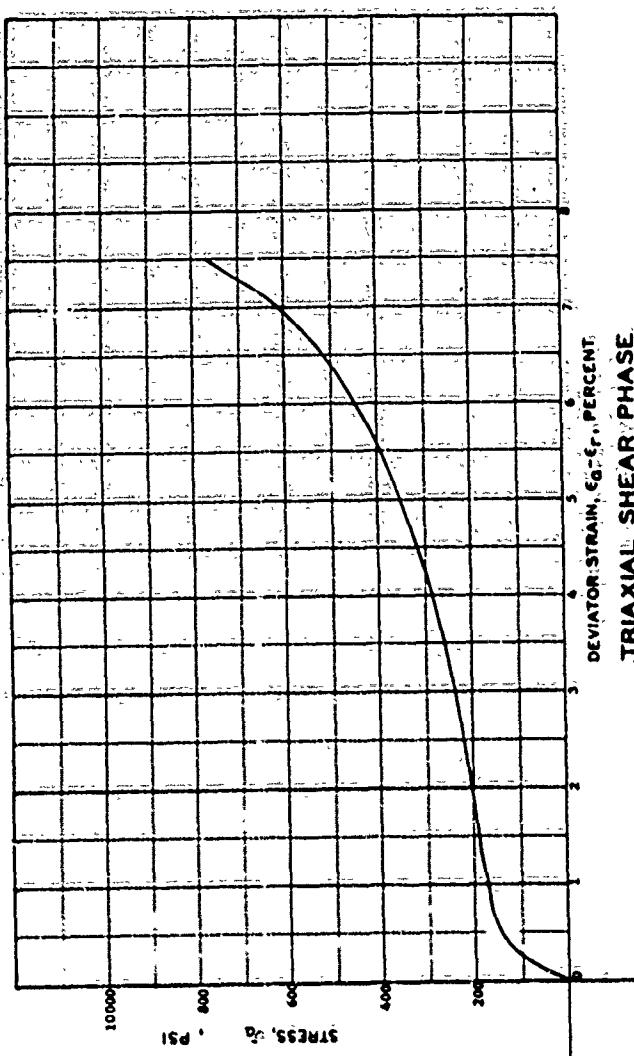
| |
|--|
| PROJECT: Georgia Institute of Technology S-602 |
| Contract No. N6039-67-C-0091 |
| AREA: |
| SAMPLE NO. 219 |
| BOREH NO. |
| DEPTH |
| EL. |
| LL |
| PL |
| PI |
| DATE |
| DESCRIPTION: Inorganic Silicate Clay |
| Comments: Sterile, Ratio, 0.8, Saturated Pressure, 0.251 |
| Cycle Stress = 328 |

VOLUME TRAC STRAIN, AV/%, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.26 | % |
| VOID RATIO | e _o | 0.77 | |
| SATURATION | S _o | 39.57 | % |
| DRY DENSITY | γ_d | 95.27 | pcf |
| WET DENSITY | γ_w | 106.00 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _o | 3.49 | cm |
| SPECIMEN HEIGHT | H _c | 7.49 | cm |



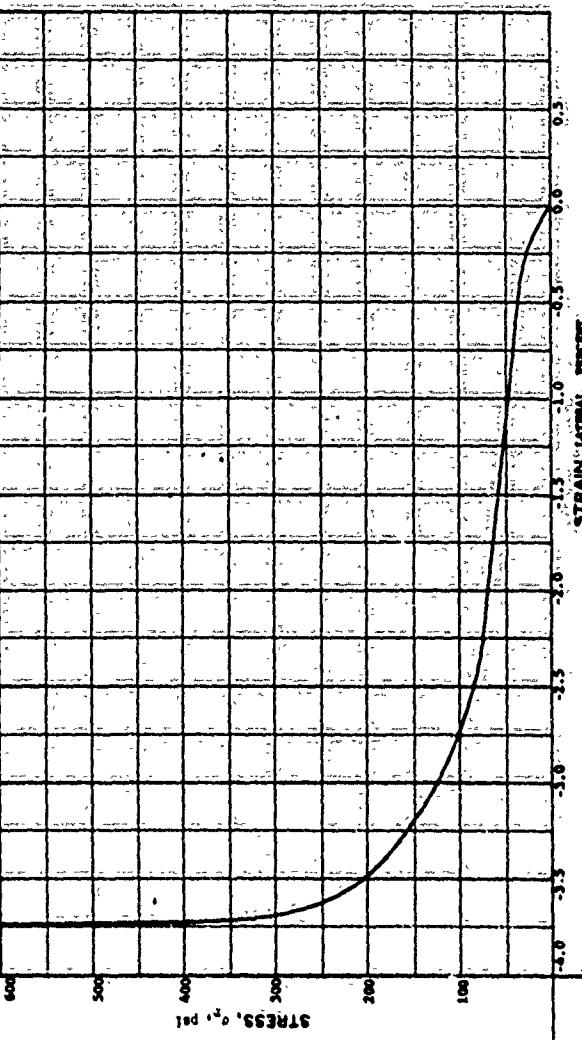
HYDROSTATIC COMPRESSION PHASE



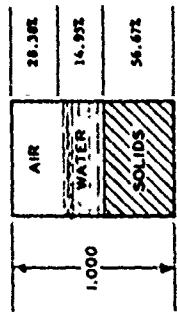
DEVIATORIC STRESS, σ_d , PERCENT TRIAXIAL SHEAR PHASE

| | |
|--|-----------------|
| PROJECT: Georgia Institute of Technology 8-602 | SAMPLE NO. 219, |
| Contract No. 86419-67-C-0031 | DATE |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL. | |
| J.L. | PL |
| | PI |
| | 19 |
| DESCRIPTION: Wet sand, 81% water | |
| Constant Strain Ratio, 0.9 | |
| Initial Pressure, 0 psi | |

HYDROSTATIC PRESSURE, P, PSI



| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 9.77 % |
| VOID RATIO | e ₀ | 0.76 |
| SATURATION | S ₀ | 34.49 % |
| DRY DENSITY | r _d | 95.67 pcf |
| WET DENSITY | r _w | 104.80 pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| CYLINDER DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE

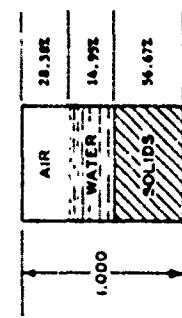
HYDROSTATIC PRESSURE, P, PSI

331

| | | | |
|--|-------------|-------|--|
| PROJECT: Geotechnical Institute of Technology, B. I. | | | |
| Contract No.: 10435-67-C-0051 | | | |
| AREA: | SAMPLE NO.: | DATE: | |
| BORING NO.: | | | |
| DEPTH: | | | |
| DESCRIPTION: Medium sand clay | | | |
| Constant Stress Ratio, 0.5 | | | |
| Initial Pressure, 0 psi | | | |

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT

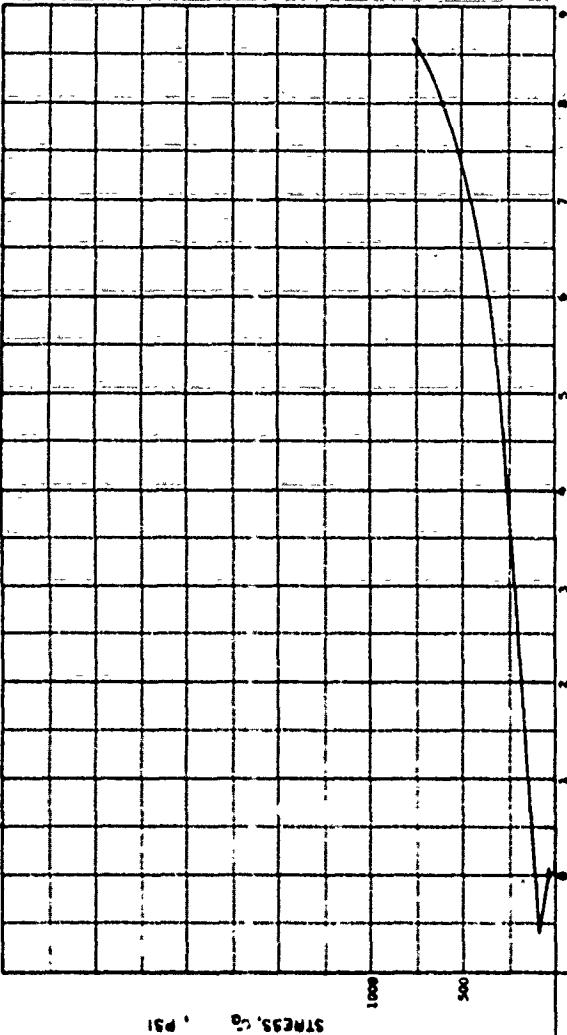
| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 9.77 % |
| VOID RATIO | e ₀ | 0.76 |
| SATURATION | S ₀ | 34.49 % |
| DRY DENSITY | D ₀ | 95.47 PCF |
| WET DENSITY | γ | 104.80 PCF |
| SPECIFIC GRAVITY | G ₀ | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.51 CM |
| SPECIMEN HEIGHT | H ₀ | 1.52 CM |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

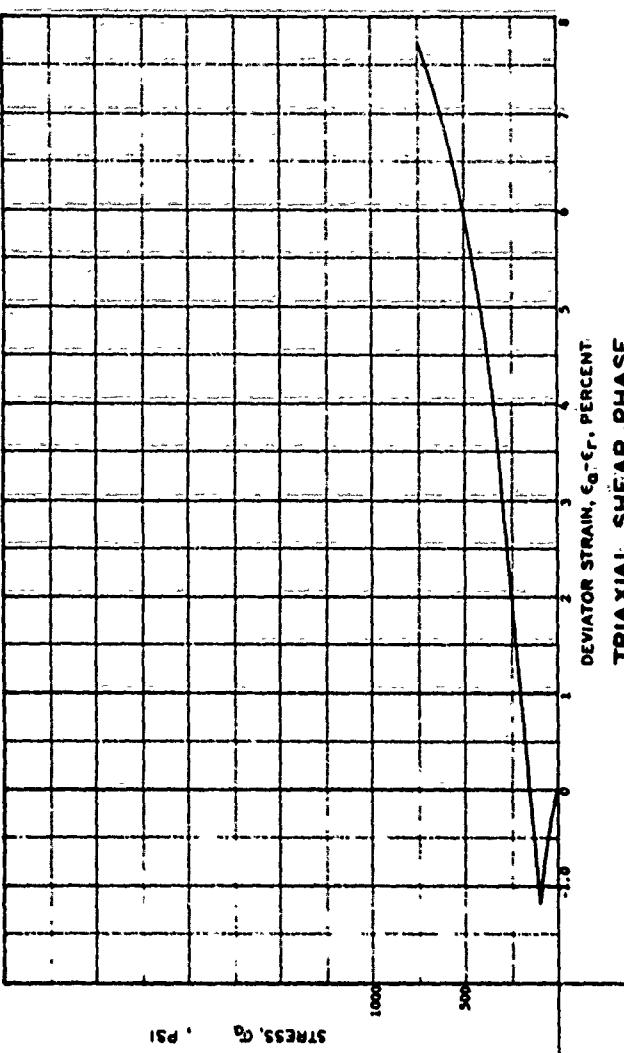
332



TRIAXIAL SHEAR PHASE

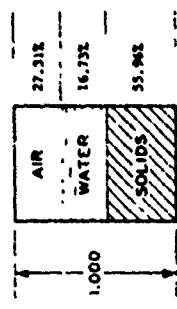
| | | |
|--|----------------|----|
| PROJECT George Washington University: 0002 | | |
| Contract No. DCAAF-67-C-0031 | | |
| AREA | SAMPLE NO. 221 | |
| BORING NO. | DATE | |
| DEPTH EL | | |
| LL | PL | P1 |
| DESCRIPTION Wetting Mill Cleft | | |
| Constant Stress Ratio, 0.9 | | |
| Saturation Pressure, 0.261 | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



HYDROSTATIC COMPRESSION PHASE

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.07 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S _o | 37.98 | % |
| DRY DENSITY | γ _d | 96.28 | pcf |
| WET DENSITY | γ _w | 106.72 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.69 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |

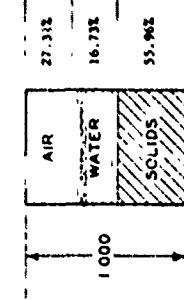


HYDROSTATIC PRESSURE, P, PSI

| | | | |
|---------------------------------|---|----|----------------|
| PROJECT | Concrete Institute of Technology, B-102 | | |
| Contract No. | B-102-1972-C-0031 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 340 | | |
| DEPTH | DATE | | |
| EL | LL | PL | P _f |
| | 36 | 17 | 39 |
| DESCRIPTION: Batching Mill Gley | | | |
| Concrete Strength Ratio, 0.9 | | | |
| Initial Pressure, 0 psi | | | |

VOLUMETRIC STRAIN, ΔV/V, PERCENT

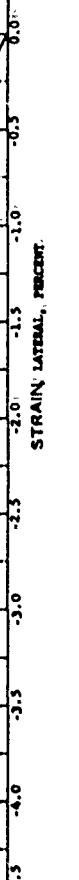
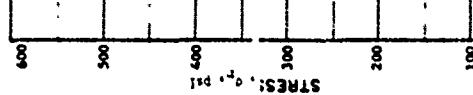
| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 11.07 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_o | 37.96 % |
| DRY DENSITY | γ_d | 96.28pcf |
| WET DENSITY | γ | 104.72pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.49 cm |
| SPECIMEN HEIGHT | H_o | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

334



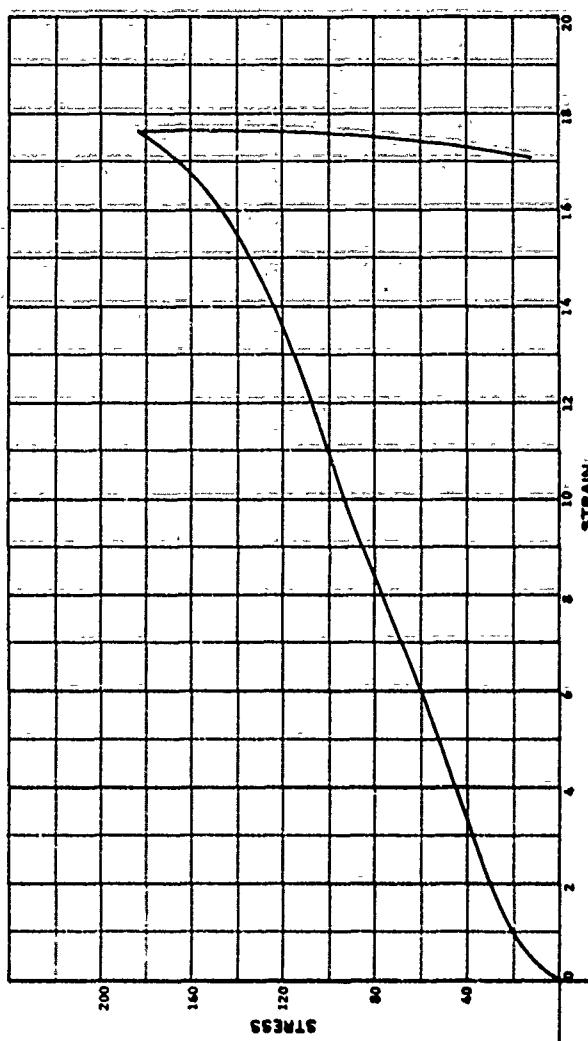
| | |
|-------------------------------|--------------------------------------|
| PROJECT | Georgia Institute of Technology A-92 |
| Contract No. | DMO39-67-C-0031 |
| AREA | |
| BORING NO. | SAMPLE NO. 340 |
| DEPTH | DATE |
| EL. | |
| LL. | PL 17 P1 19 |
| DESCRIPTION Maching Mill Clay | |
| Constant Stress Ratio, 0.9 | |
| Initial Pressure, 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

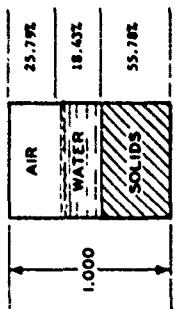
Group D

No-Lateral-Strain Tests

| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 12.26 % |
| VOID RATIO | e_0 | 0.79 |
| SATURATION | S_o | 41.68 % |
| DRY DENSITY | γ_d | 93.96 PCF |
| WET DENSITY | γ_w | 105.48 PCF |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_0 | 3.49 CM |
| SPECIMEN HEIGHT | H_0 | 7.62 CM |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

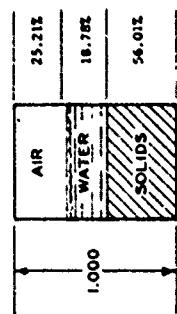
337

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|--|----------------|
| PROJECT: Georgia Institute of Technology 9-602 | |
| Contract No. MCA39-67-C-0051 | |
| AREA: | |
| BORING NO. | SAMPLE NO. 228 |
| DEPTH | DATE |
| EL | |
| LL | PL |
| | P1 |
| | 19 |
| DESCRIPTION: Matching Siltyclay | |
| No Lateral Strain Triaxial Test | |
| Initial Confining Pressure 0 psi | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

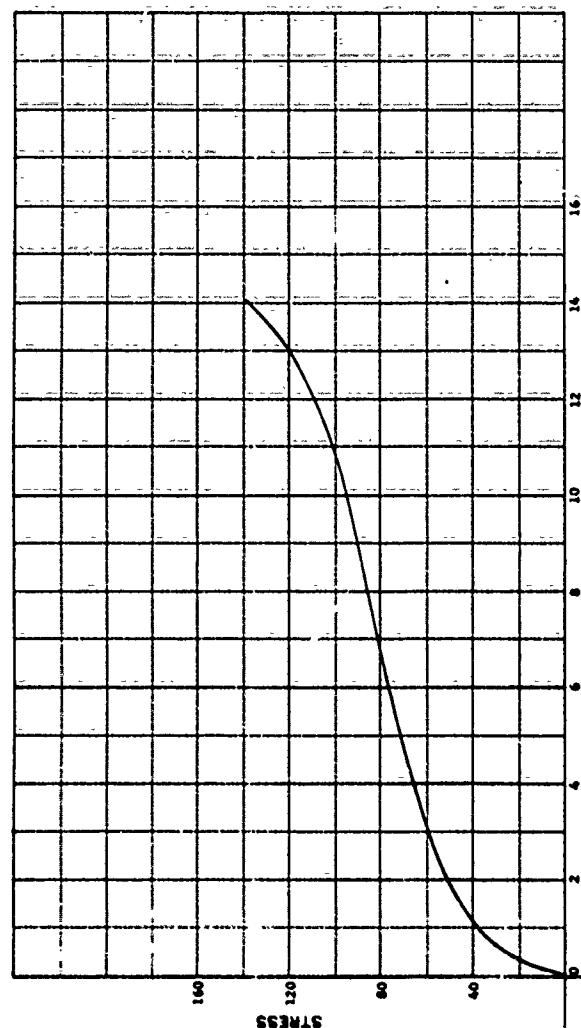
| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.42% |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S ₀ | 42.69% |
| DRY DENSITY | γ_d | 94.36pcf |
| WET DENSITY | γ | 106.08pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.47 CM |
| SPECIMEN HEIGHT | H ₀ | 7.64 CM |



HYDROSTATIC COMPRESSION PHASE

STRESS

STRAIN

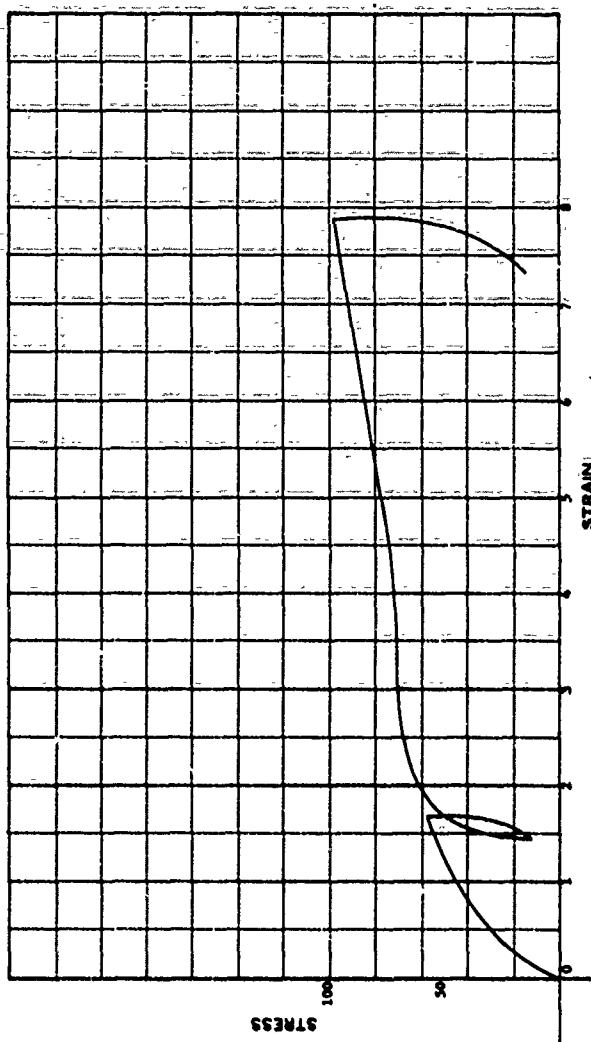


HYDROSTATIC PRESSURE, P, PSI

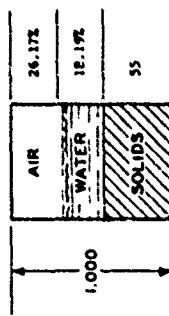
338

| | | | | | |
|----------------------------------|---------------------------------------|------|----|----|----|
| PROJECT | Georgia Institute of Technology B-602 | | | | |
| Contract No. | NCEC9-47-5-0051 | | | | |
| AREA | | | | | |
| BORING NO. | SAMPLE NO. 235 | DATE | | | |
| DEPTH EL. | | | | | |
| LL | 36 | PL | 17 | PT | 19 |
| DESCRIPTION: Watch Hill Clay | | | | | |
| No lateral Strata, Intercalate | | | | | |
| Initial Confined Pressure, 0 psi | | | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



| | | | |
|--------------------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.11 | % |
| VOID RATIO | e_0 | 0.80 | |
| SATURATION | S_o | 41.00 | % |
| DRY DENSITY | γ_d | 93.75 | pcf |
| WET DENSITY | γ_w | 105.49 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| DIAMETER D ₀ | D ₀ | 3.48 | cm |
| SPECIMEN HEIGHT H ₀ | H ₀ | 7.68 | cm |



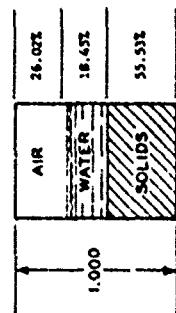
HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

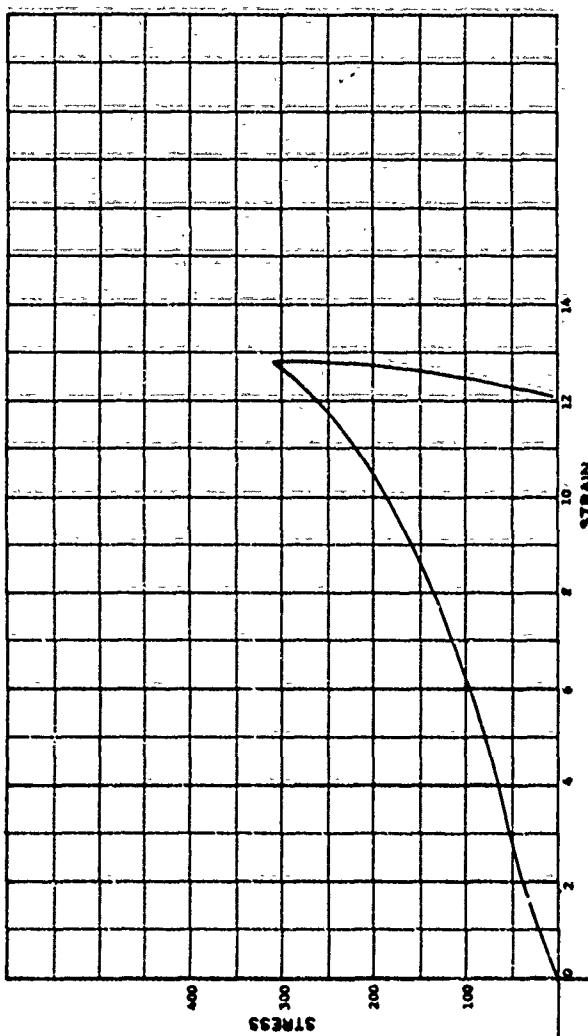
| | |
|---|----------------|
| PROJECT Georgia Institute of Technology B-602 | |
| Contract No. INCA9-07-C-0031 | |
| AREA | SAMPLE NO. 261 |
| BORING NO. | |
| DEPTH | DATE |
| EL. | |
| LL | PL 17 PI 19 |
| DESCRIPTION Watch Hill Clay | |
| No Lateral Strain Triaxial Test. Initial Confining Pressure 0.251 | |
| Cycle Shear | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.30 % |
| VOID RATIO | e_0 | 0.80 |
| SATURATION | S_o | 41.69 % |
| DRY DENSITY | γ_d | 93.56pcf |
| WET DENSITY | γ_w | 105.07pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_0 | 3.48 cm |
| CONFIDN HEIGHT | H_0 | 7.62 cm |



HYDROSTATIC COMPRESSION PHASE



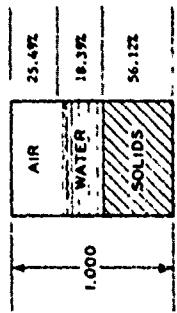
HYDROSTATIC PRESSURE, psi, PSI

340

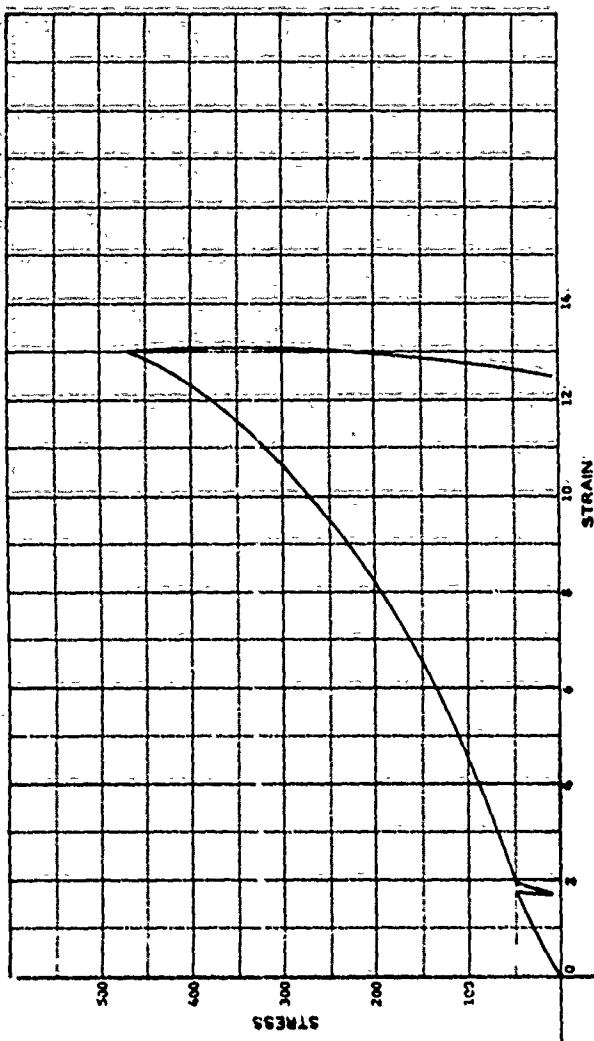
| | | |
|--|-----------------|-------|
| PROJECT: Georgia Institute of Technology 3-602 | | |
| Contract No. DACA39-67-C-0051 | | |
| AREA: | | |
| BORING NO.: | SAMPLE NO.: 224 | |
| DEPTH E.L.: | DATE: | |
| L.L. 36 | PL 17 | PI 19 |
| DESCRIPTION: Watchung Hill Clay | | |
| No Lateral Strain Triaxial Test | | |
| Initial Confining Pressure, 100 psi | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.13 | % |
| VOID RATIO | e ₀ | 0.78 | |
| SATURATION | S ₀ | 61.90 | % |
| DRY DENSITY | γ _d | 96.55 | pcf |
| WET DENSITY | γ _w | 106.02 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 2.49 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.55 | cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

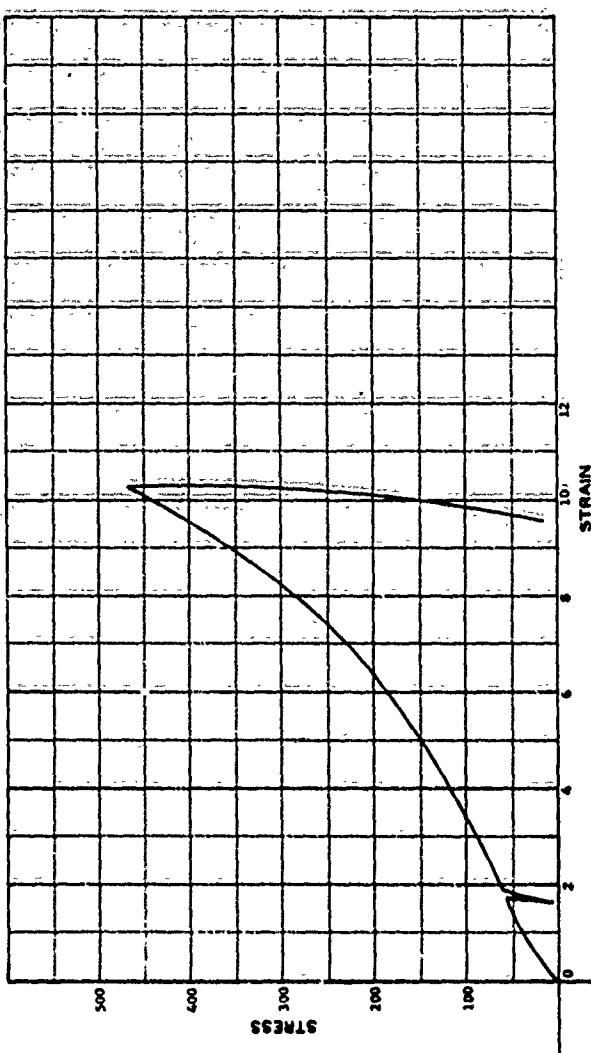
342

| | | | |
|--|----------|------------|------|
| PROJECT: Georgia Institute of Technology I-692 | | | |
| Contract No. DACA09-67-C-0051 | | | |
| AREA | BORE NO. | SAMPLE NO. | DATE |
| | | | |
| L.L. | 36 | P.L. | 17 |
| | | | P1 |
| | | | 19 |

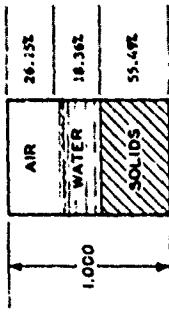
DESCRIPTION: Wetting Mill-Clay

No. Lateral Strain, Triaxial Test. Initial Confining Pressure: 100 psi.
Cyclic Shear

VOLUMETRIC STRAIN, ΔV/V₀, PERCENT



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

311

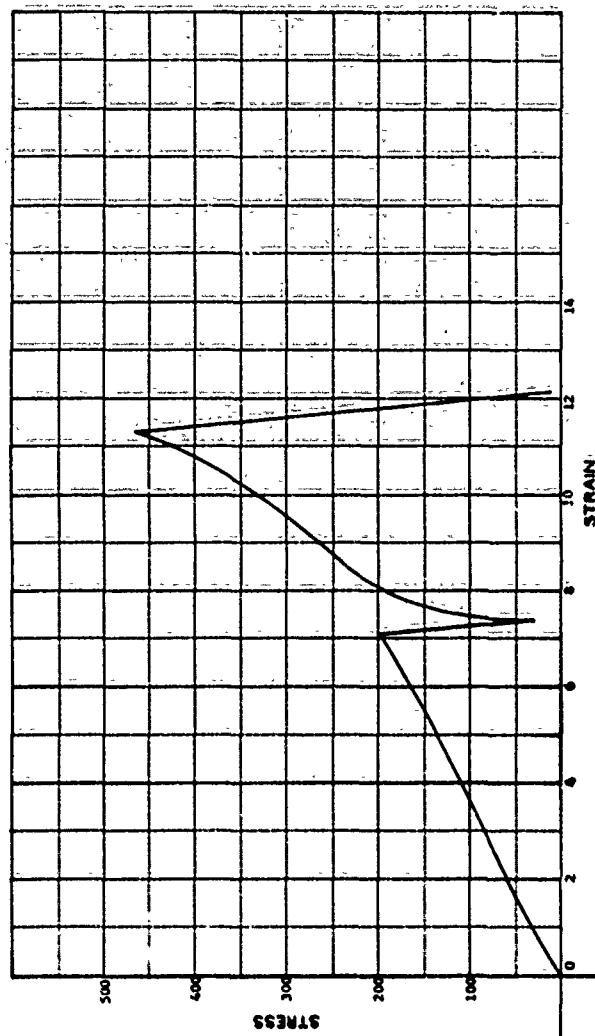
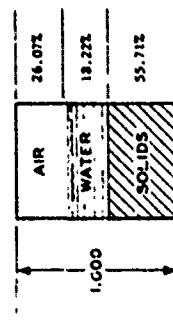
| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.26 % |
| VOID RATIO | e ₀ | 0.80 |
| SATURATION | S _o | 41.26 % |
| DRY DENSITY | γ_d | 93.49pcf |
| WET DENSITY | γ | 105.95pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 cm |
| SPECIMEN HEIGHT | H ₀ | 7.64 cm |

| | | | | |
|--|-----------------|----|----------------|----|
| PROJECT: General Institute of Technology S-02: | | | | |
| Core Site No.: DMCA9-07-C-00311 | | | | |
| AREA | SAMPLE NO.: 232 | | | |
| BORING NO. | DEPTH | | | |
| EL | DATE | | | |
| LL | PL | 17 | P ₁ | 19 |

DESCRIPTION: Wetting Mill Clay
No Lateral Strain Triaxial Test. Initial Confining Pressure 100 psi
Cycle Shear

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.11 | % |
| VOID RATIO | e_0 | 0.90 | |
| SATURATION | S_o | 41.13 | % |
| DRY DENSITY | γ_d | 93.65 | pcf |
| WET DENSITY | γ_w | 105.22 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.49 | cm |
| SPECIMEN HEIGHT | H_o | 7.62 | cm |



HYDROSTATIC COMPRESSION PHASE

HYDROSTATIC PRESSURE, P, PSI

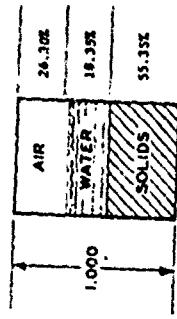
343

| | |
|--|-------|
| PROJECT: Georgia Institute of Technology 3-602 | AREA: |
| COLLEGE: EN. DIA-917-C-0051 | |
| SAMPLE NO. 245 | DATE |
| BORING NO. | |
| DEPTH | |
| EL. | |
| L.L. | P.L. |
| | 17 |
| | P1 |
| | 19 |

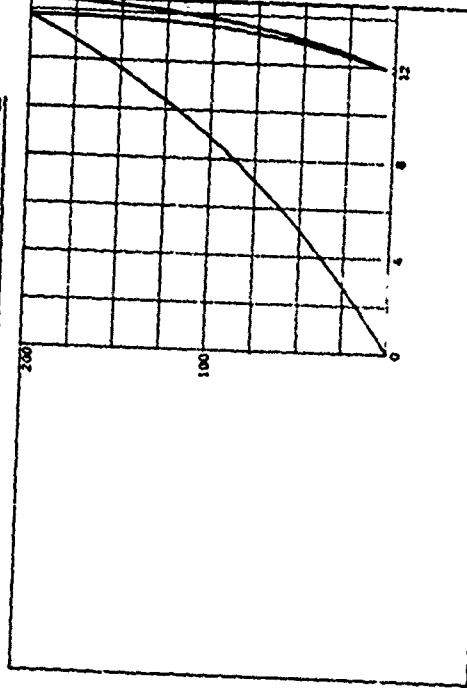
DESCRIPTION: Wetland Hill Clay
Soil Lateral Strain Test - Test, Initial Confining Pressure 100 psi
Cycle Shear

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.28 | % |
| VOID RATIO | e ₀ | 0.81 | |
| SATURATION | S ₀ | 41.11 | % |
| DRY DENSITY | D ₀ | 93.25 | pcf |
| WET DENSITY | D _w | 106.71 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _o | 3.69 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.62 | cm |

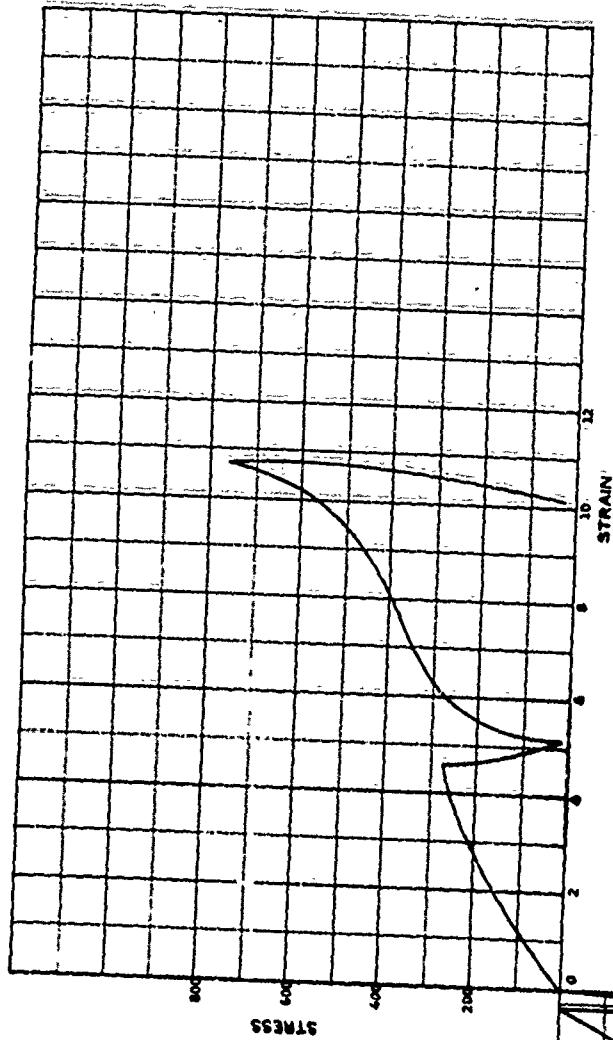


HYDROSTATIC COMPRESSION PHASE

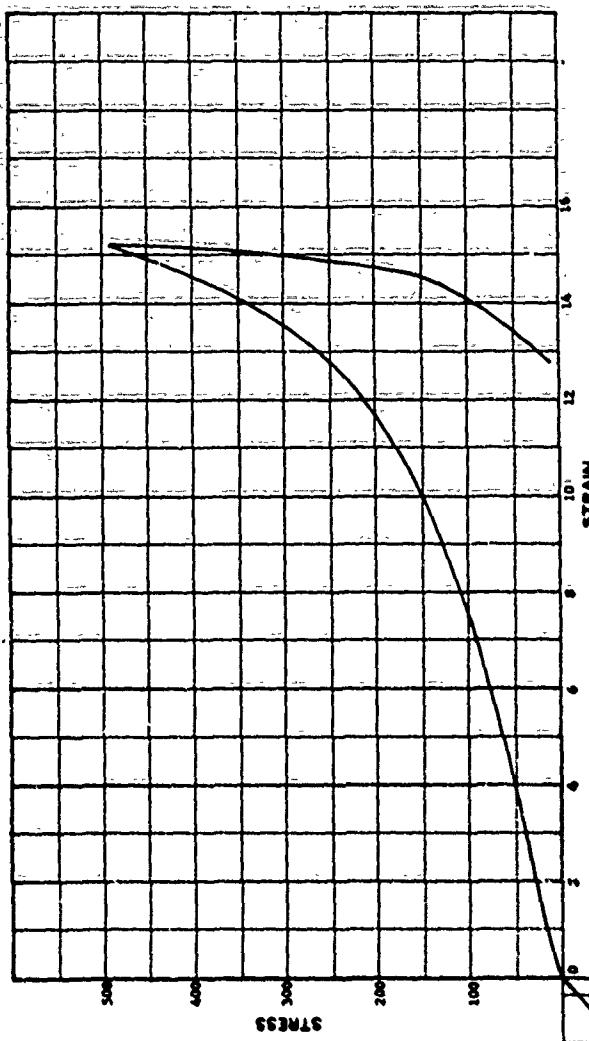


VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

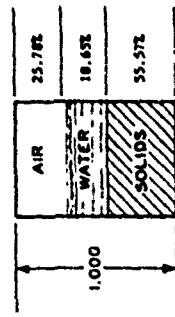
HYDROSTATIC PRESSURE, P, PSI



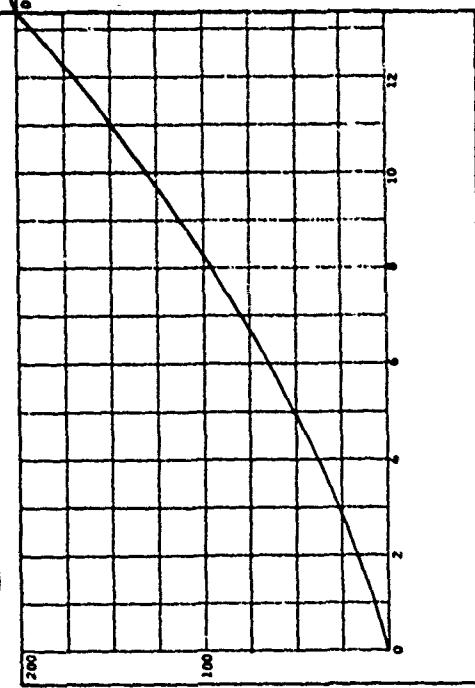
| | | | |
|---|---------------------------------------|----|-------|
| PROJECT | Georgia Institute of Technology B-602 | | |
| Contract No. | EMCA59-67-C-0021 | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 229 | | |
| DEPTH EL | DATE | | |
| LL | PL | 17 | PL 19 |
| DESCRIPTION <u>Messin Hill clay</u> | | | |
| No lateral strain Triaxial Test, Initial Confining Pressure 200/201 | | | |
| Cycle Shear, Cycle Compression. | | | |



| | | |
|-------------------|------------|-----------|
| WATER CONTENT | W | 12.63 % |
| VOID RATIO | e_0 | 0.80 |
| SATURATION | S_o | 41.98 % |
| DRY DENSITY | γ_d | 93.63pcf |
| WET DENSITY | γ_w | 105.27pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.69 cm |
| SPECIMEN HEIGHT | H_o | 7.64 cm |



HYDROSTATIC COMPRESSION PHASE



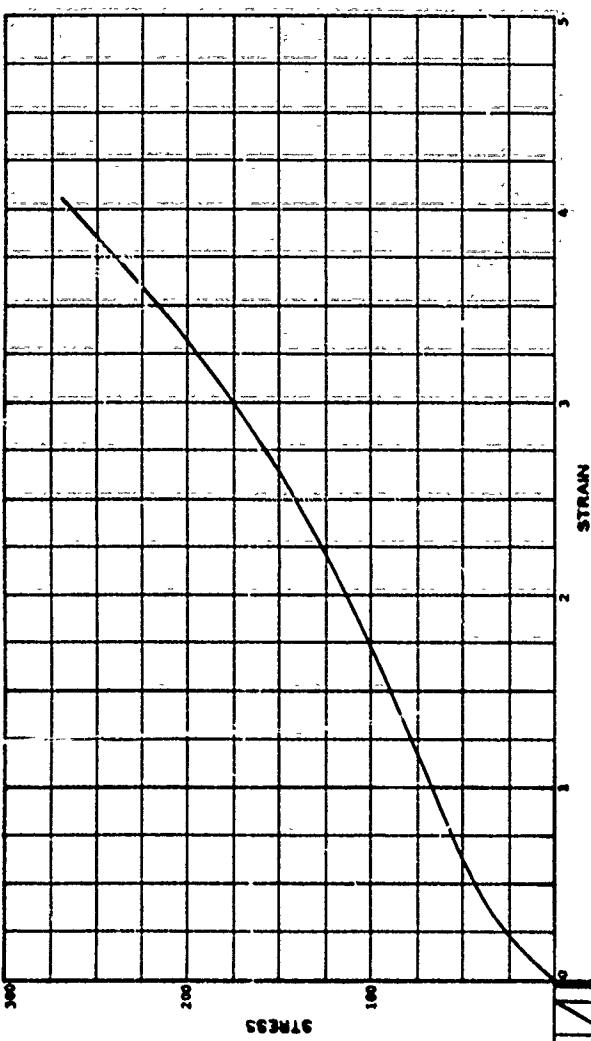
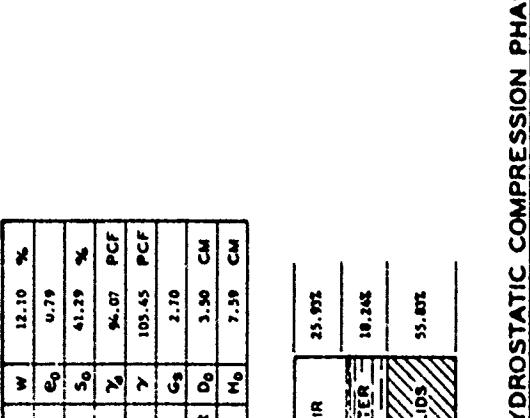
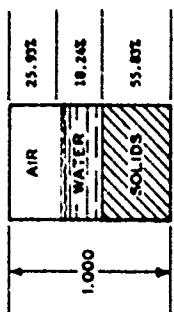
HYDROSTATIC PRESSURE, P, PSI

345

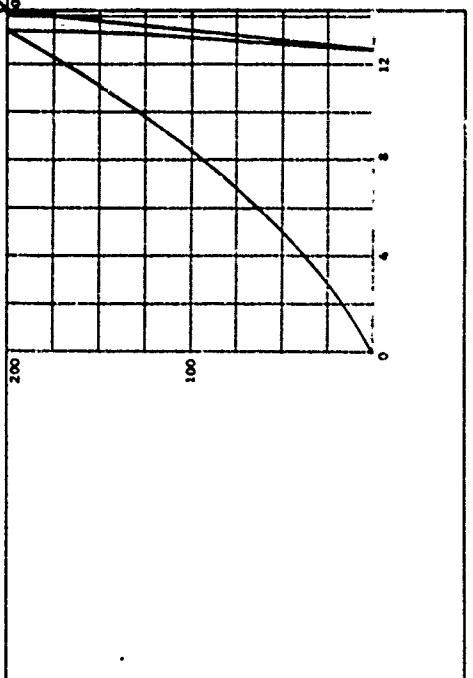
| PROJECT SANTA FE RAILROAD, SANTA FE, N.M. | |
|---|----------------|
| Contract No. 24CA39-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 236 |
| DEPTH EL. | DATE |
| LL. 36 | PL. 17 |
| | P1 19 |

DESCRIPTION: Weathered Shallow Clay
No Lateral Strain Triaxial Test
Initial Confining Pressure, 100 psi

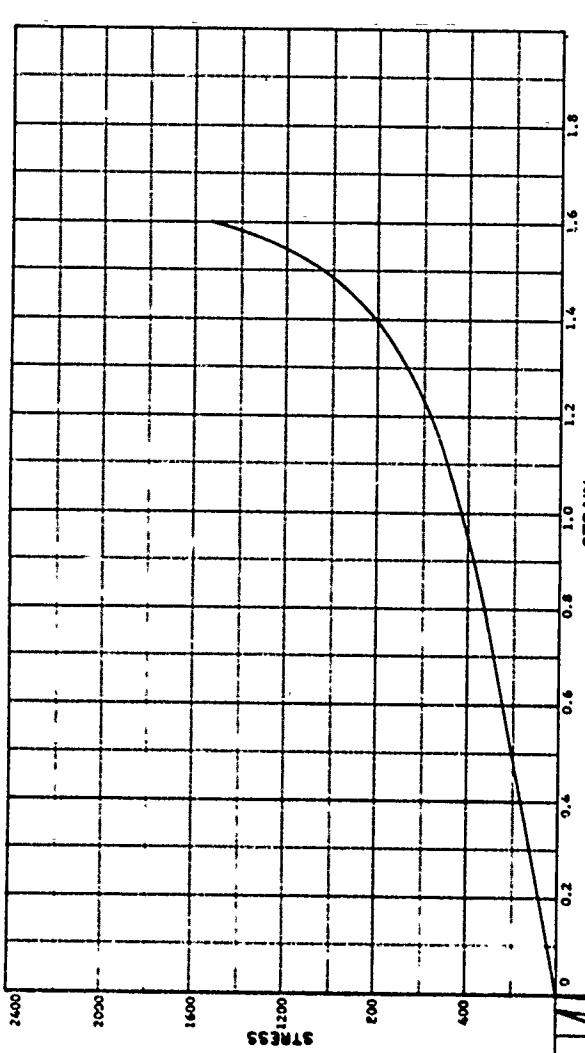
| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.10 | % |
| VOID RATIO | e_0 | 0.79 | |
| SATURATION | S_o | 41.29 | % |
| DRY DENSITY | γ_d | 96.07 | pcf |
| WET DENSITY | γ | 105.45 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.59 | cm |



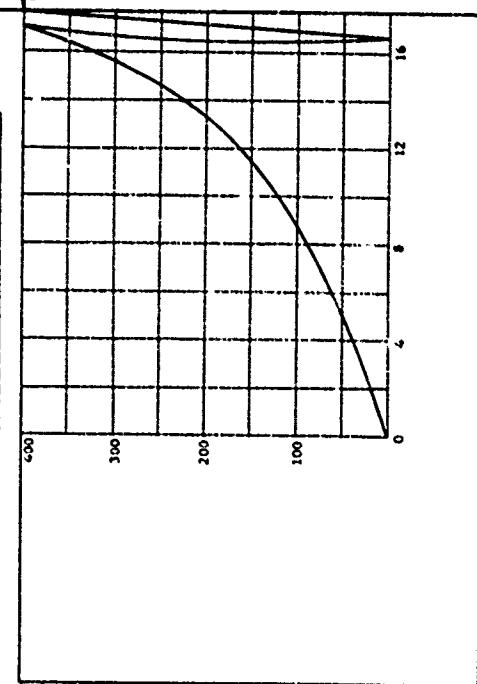
| | |
|--|-----------------|
| PROJECT Georgia Institute of Technology, B-62 | |
| Contract No. DMAE3-67-C-0021 | |
| AREA | |
| PORING NO. | SAMPLE NO.: 267 |
| DEPTH | DATE |
| EL. | |
| LL | PL |
| 16 | 17 |
| 19 | PT. |
| DESCRIPTION: Matching Hill Clay | |
| No-Lateral Strain Triaxial Test | |
| Initial Confining Pressure, 200 psi. Cyclic Compression. | |



| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.11 | % |
| VOID RATIO | e_0 | 0.80 | |
| SATURATION | S_o | 41.04 | % |
| DRY DENSITY | γ_d | 93.16 | pcf |
| WET DENSITY | γ | 105.12 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.50 | cm |
| SPECIMEN HEIGHT | H_o | 7.61 | cm |



HYDROSTATIC COMPRESSION PHASE



HYDROSTATIC PRESSURE, P, PSI

347

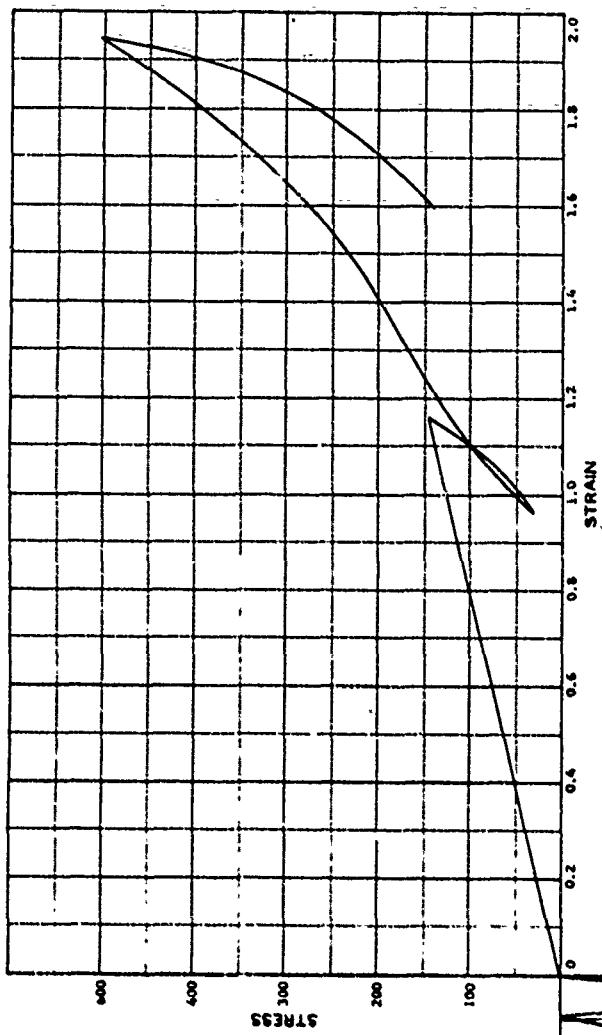
| | |
|--|-----------------------|
| PROJECT <u>Georgia Institute of Technology I-602</u> | |
| Contract No. <u>DMCA39-67-C-0031</u> | |
| AREA | |
| BORING NO. | SAMPLE NO. <u>246</u> |
| DEPTH | DATE |
| EL. | |
| LL. | PL. 17 |
| | P1 19 |

DESCRIPTION Watchung Hill Clay - No Lateral Strain Test

Initial Confining Pressure 400 psi.

Cycle Compression

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT



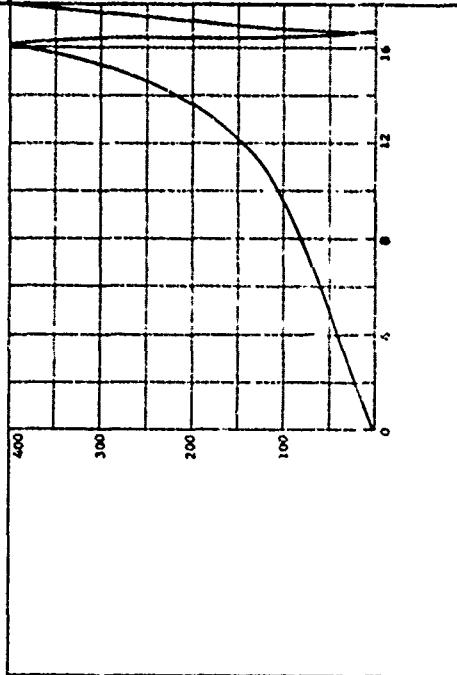
| | | |
|-------------------|------------|----------|
| WATER CONTENT | W | 12.36 % |
| VOID RATIO | e_0 | 0.61 |
| SATURATION | S_o | 40.86 % |
| DRY DENSITY | γ_d | 93.02pcf |
| WET DENSITY | γ_w | 1.044pcf |
| SPECIFIC GRAVITY | G_s | 2.70 |
| SPECIMEN DIAMETER | D_o | 3.50 cm |
| SPECIMEN HEIGHT | H_o | 7.53 cm |

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WATER
SOLIDS

AIR
WATER
SOLIDS

HYDROSTATIC COMPRESSION PHASE



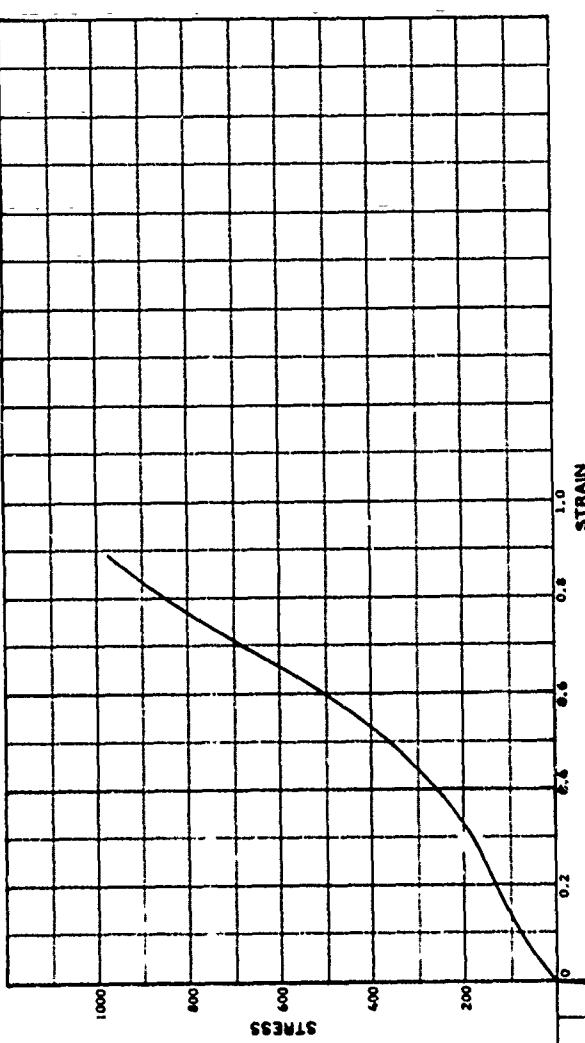
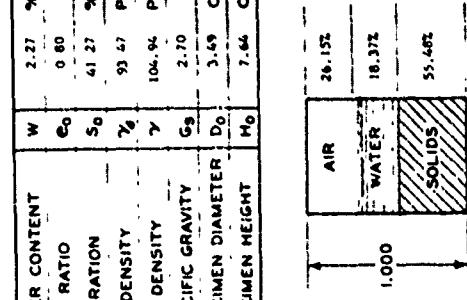
HYDROSTATIC PRESSURE, P, PSI

348

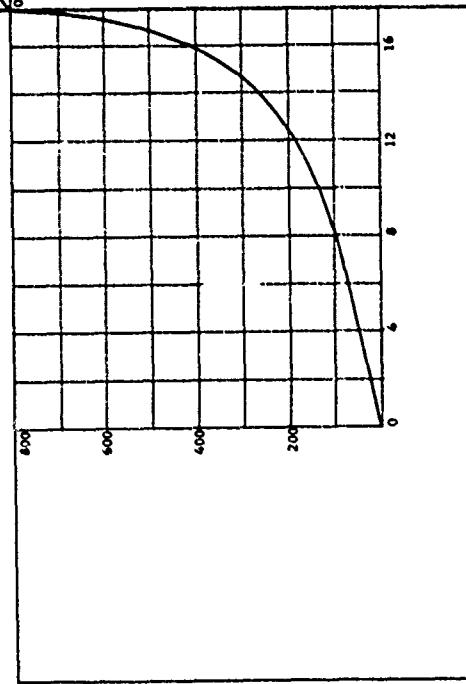
| | | | |
|---|------------|------------|------|
| PROJECT Georgia Institute of Technology B-602 | | | |
| Contract No. BMAD33-67-C-0031 | | | |
| AREA | BORING NO. | SAMPLE NO. | DATE |
| | | | |
| E.L. | PL | 17 | P1 |
| DESCRIPTION Weathered Bell Clay | | | |
| No Lateral Strain Triaxial Test, Initial Confining Pressure 400 psi | | | |
| Cycle Shear, Cycle Compression | | | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 2.27 | % |
| VOID RATIO | e_0 | 0.60 | |
| SATURATION | S_o | 41.27 | % |
| DRY DENSITY | γ_d | 93.47 | pcf |
| WET DENSITY | γ | 104.94 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.69 | cm |
| SPECIMEN HEIGHT | H_o | 7.64 | cm |



HYDROSTATIC COMPRESSION PHASE



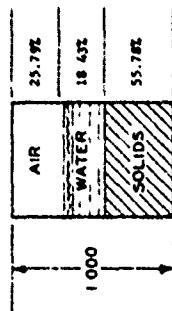
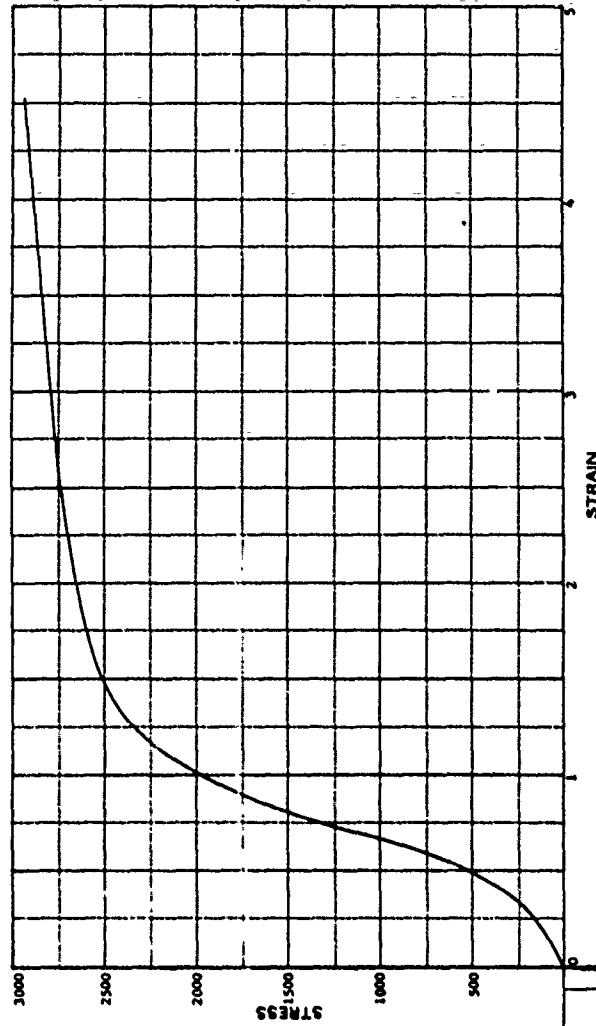
HYDROSTATIC PRESSURE, P, PSI

349

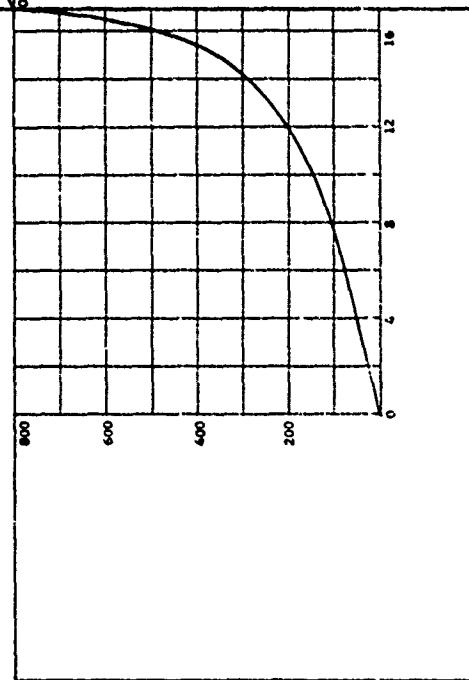
| | |
|--|----------------|
| PROJECT <u>Georgia Institute of Technology B-602</u> | |
| Contract No. DMAA9-67-C-0051 | |
| AREA | |
| BORING NO. | SAMPLE NO. 223 |
| DEPTH EL | DATE |
| LL 36 | PL 17 |
| | P1 19 |
| DESCRIPTION <u>Mechanistic Clay</u> | |
| No Lateral Strain Triaxial Test | |
| Initial Confined Pressure, 800 psi | |

VOLUME STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|-----------|
| WATER CONTENT | W | 12.24 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | S ₀ | 41.64 % |
| DRY DENSITY | γ _d | 93.96pcf |
| WET DENSITY | γ _w | 105.48pcf |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.48 cm |
| SPECIMEN HEIGHT | H ₀ | 7.64 cm |



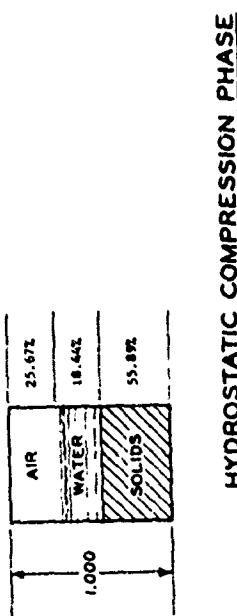
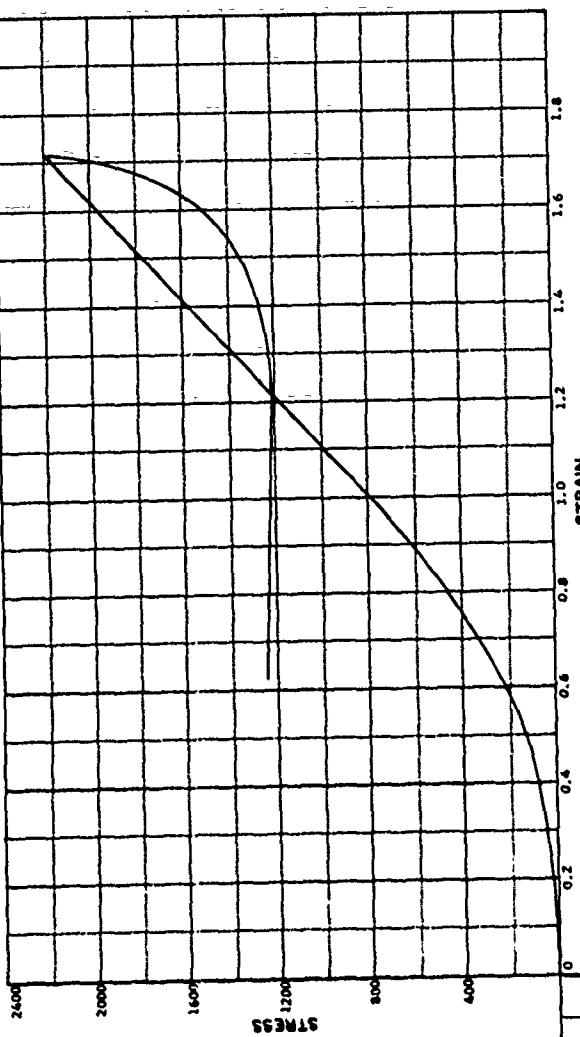
HYDROSTATIC COMPRESSION PHASE



| | |
|--------------|--------------------------------------|
| PROJECT | State Institute of Technology, B-402 |
| Contract No. | DECAL-67-6-0051 |
| | |
| AREA | |
| BORING NO. | SAMPLE NO. 225 |
| DEPTH | DATE |
| EL | |
| LL 36 | PL 17 |
| | P1 19 |

DESCRIPTION *Machling Hill Clay*
No Lateral Strain Triaxial Test
Initial Confines Pressure, 500 psi

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.22 | % |
| VOID RATIO | e ₀ | 0.19 | |
| SATURATION | s ₀ | 41.80 | % |
| DRY DENSITY | γ_d | 94.17 | pcf |
| WET DENSITY | γ_w | 105.67 | pcf |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.50 | cm |
| SPECIMEN HEIGHT | H ₀ | 7.63 | cm |

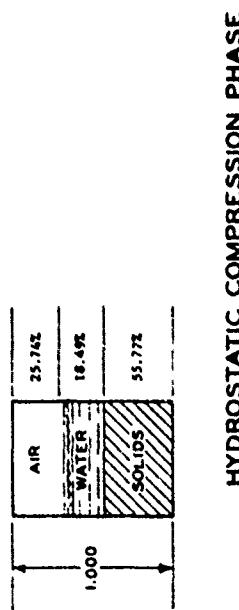
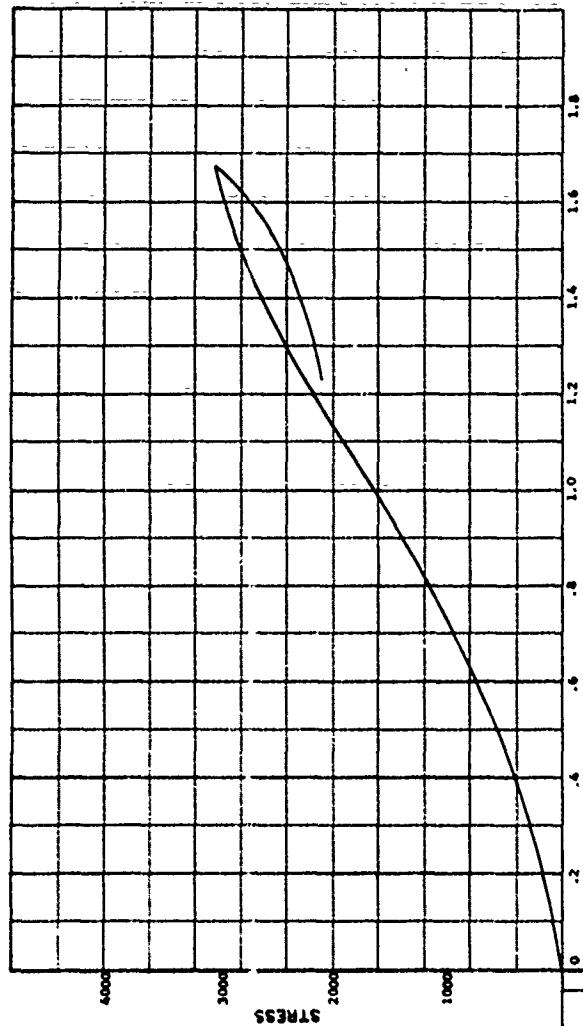


HYDROSTATIC PRESSURE, P, PSI

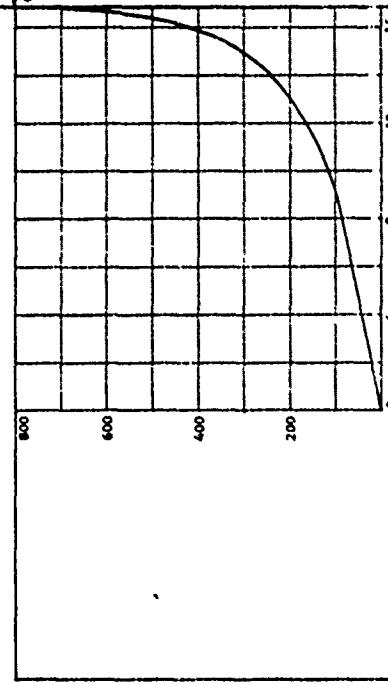
351

| | |
|---|----------------|
| PROJECT Georgia Institute of Technology B-602 | |
| Contract No. DACA39-67-C-0031 | |
| AREA | SAMPLE NO. 226 |
| BORING NO. | DATE |
| DEPTH | |
| EL | |
| LL | P.L. 17 P1 19 |
| DESCRIPTION Watchin Mill Clay | |
| No Lateral Stress Potential Test | |
| Initial Confining Pressure, 800 psi | |

| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.28 | % |
| VOID RATIO | e_0 | 0.79 | |
| SATURATION | S_o | 41.80 | % |
| DRY DENSITY | γ_d | 93.97 | pcf |
| WET DENSITY | γ_w | 105.50 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_o | 3.49 | cm |
| SPECIMEN HEIGHT | H_o | 7.59 | cm |



HYDROSTATIC COMPRESSION PHASE



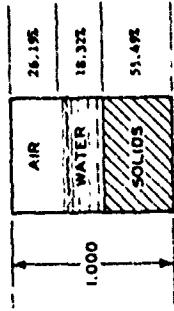
HYDROSTATIC PRESSURE, P, PSI

352

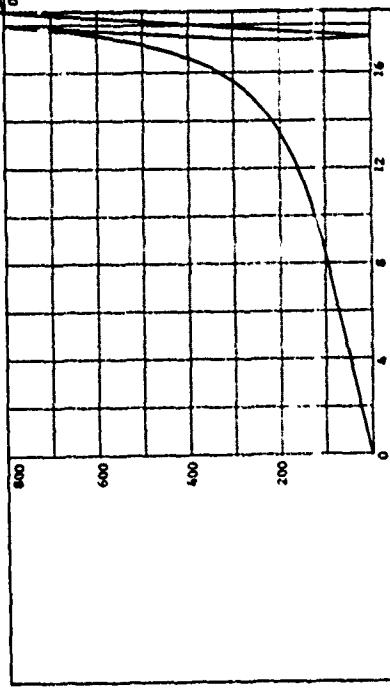
| | |
|---|---------------|
| PROJECT Georgia Institute of Technology S-602 | |
| Contract No. DACA39-67-C-0031 | |
| AREA | SAMPLE NO. #7 |
| ROTING NO. | DATE |
| DEPTH EL. | |
| LL 36 | PL 17 P1 19 |
| DESCRIPTION <u>Wetbed Kill Clay</u> | |
| No Lateral Strain Triaxial Test | |
| Initial Confining Pressure, 300 psi | |

VOLMETRIC STRAIN, $\Delta V/V$, PERCENT

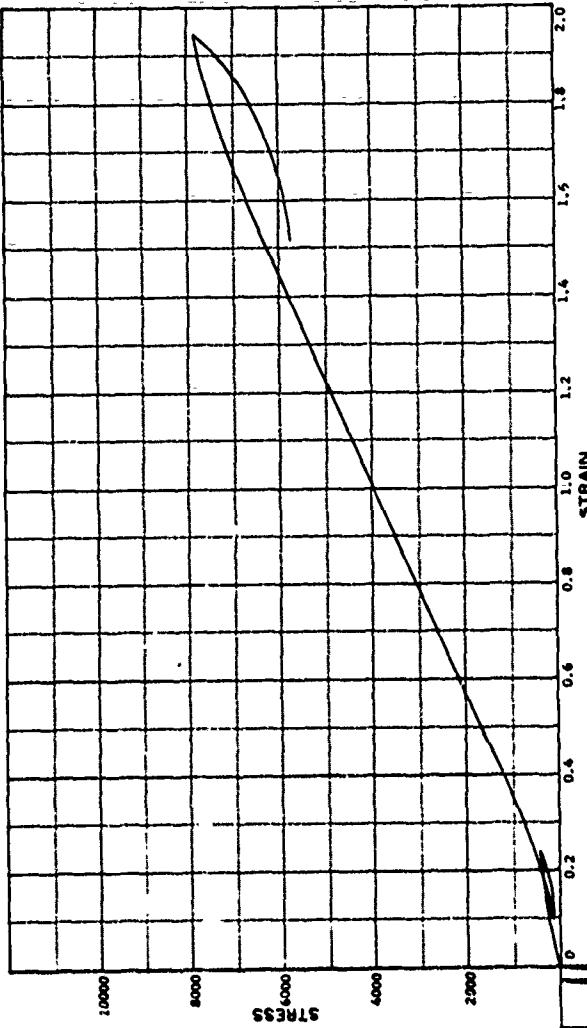
| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 12.23 | % |
| VOID RATIO | e ₀ | 0.80 | |
| SATURATION | S _o | 61.15 | % |
| DRY DENSITY | γ_d | 92.49 | PCF |
| WET DENSITY | γ_w | 106.92 | PCF |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D ₀ | 3.69 | CM |
| SPECIMEN HEIGHT | H ₀ | 7.63 | CM |



HYDROSTATIC COMPRESSION PHASE



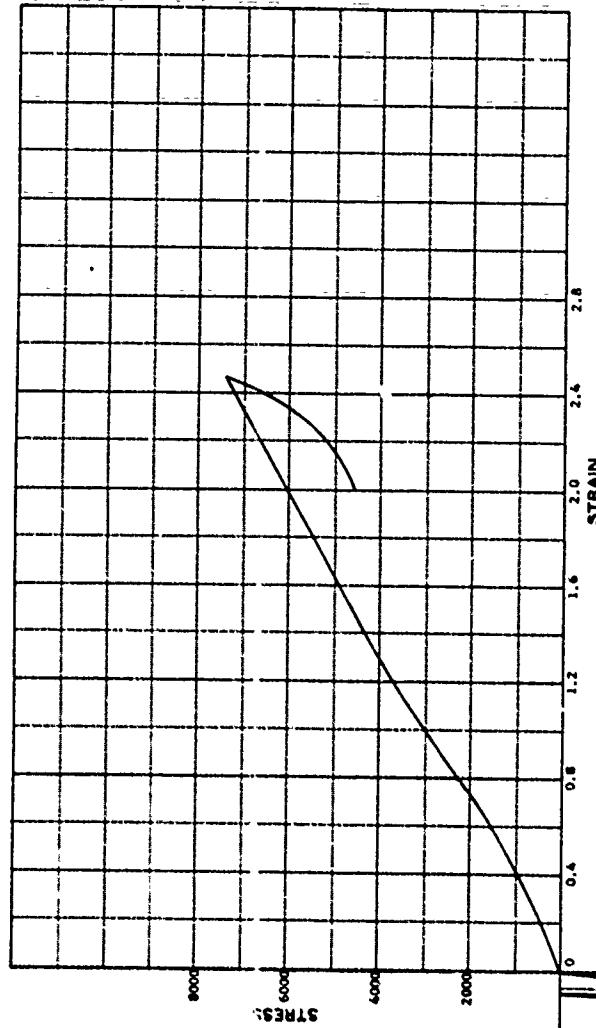
HYDROSTATIC PRESSURE, P, PSI



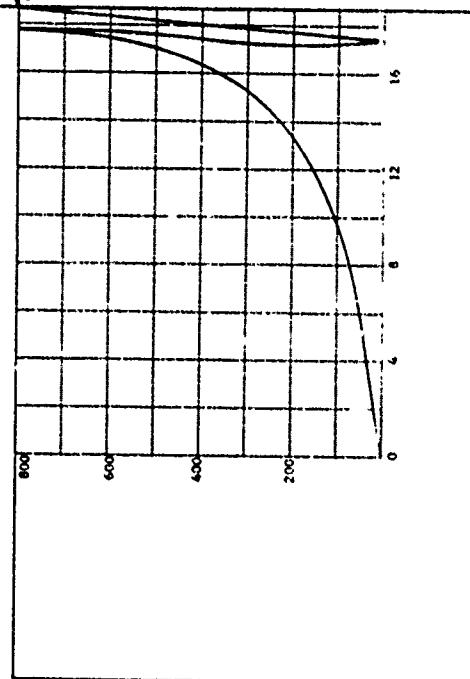
| | |
|---|-------------------|
| PROJECT <i>Geotechnical Institute of Technology B-603</i> | |
| Contract No. DMCA9-67-C-0051 | |
| TEST # | |
| SAMPLE NO. | SAMPLE NO. 239 |
| DEPTH EL | DATE |
| LL | P _L 17 |
| | P _T 19 |
| DESCRIPTION <i>Machias Hill Clay</i> | |
| No Lateral Strain Triaxial Test, Initial Confining Pressure 800 psi | |
| Cycle Shear, Cycle Compression | |

VOLUMETRIC STRAIN, $\Delta V/V_0$, PERCENT

| | | |
|-------------------|----------------|------------|
| WATER CONTENT | W | 12.65 % |
| VOID RATIO | e ₀ | 0.79 |
| SATURATION | s ₀ | 42.40 % |
| DRY DENSITY | γ_d | 93.96 PCF |
| WET DENSITY | γ | 105.67 PCF |
| SPECIFIC GRAVITY | G _s | 2.70 |
| SPECIMEN DIAMETER | D ₀ | 3.49 CM |
| SPECIMEN HEIGHT | H ₀ | 7.60 CM |



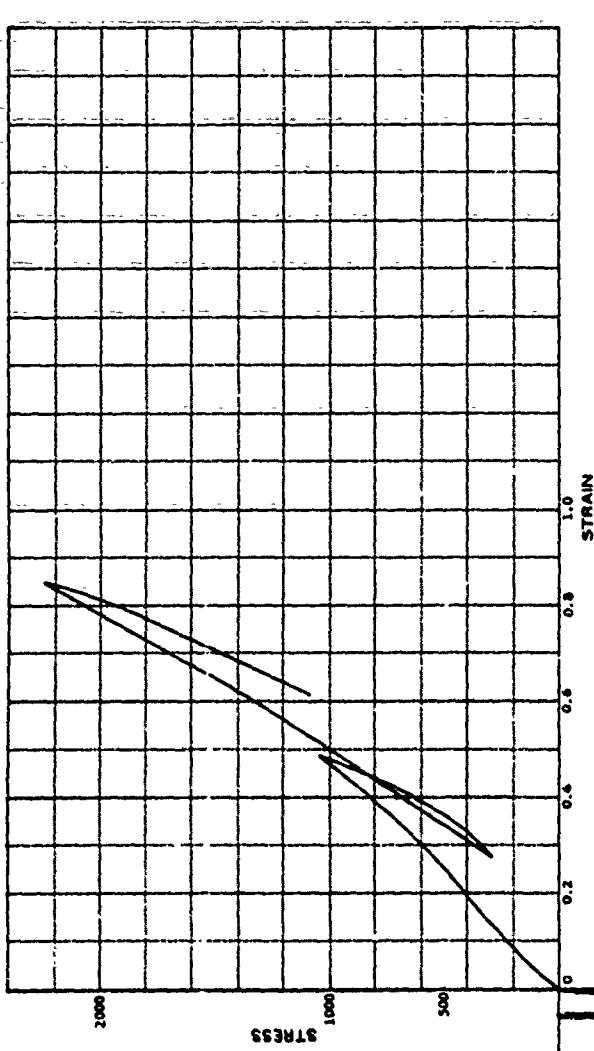
HYDROSTATIC COMPRESSION PHASE



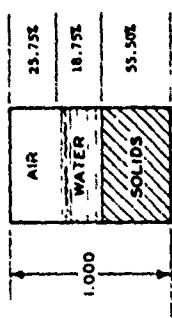
VOLUMETRIC STRAIN, $\Delta V/V$, PERCENT

| | | | |
|--|----------------|-------|-------|
| PROJECT Georgia Institute of Technology E-602. | | | |
| Contract No. DMA39-67-C-0031. | | | |
| AREA | | | |
| BORING NO. | SAMPLE NO. 270 | DATE | |
| LL | 16 | PL 17 | P1 19 |
| DESCRIPTION Witchita Hill Clay - No Lateral Strain Triaxial Test | | | |
| Initial Confining Pressure, 800 psi | | | |
| Cycle Compression | | | |

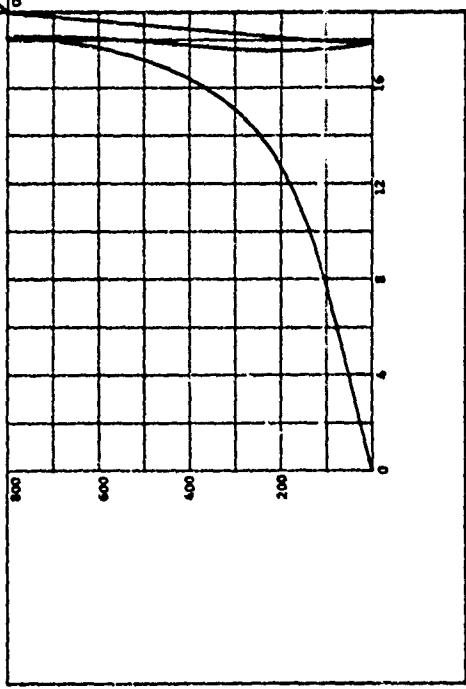
HYDROSTATIC PRESSURE, P, PSI



| | | |
|-------------------|------------|------------|
| WATER CONTENT | W | 12.51 % |
| VOID RATIO | e_0 | 0.40 |
| SATURATION | S_o | 42.13 % |
| DRY DENSITY | γ_d | 91.31 PCF |
| WET DENSITY | γ | 105.21 PCF |
| SPECIFIC GRAVITY | G_s | 2.10 |
| SPECIMEN DIAMETER | D_o | 3.49 CM |
| SPECIMEN HEIGHT | H_o | 7.62 CM |



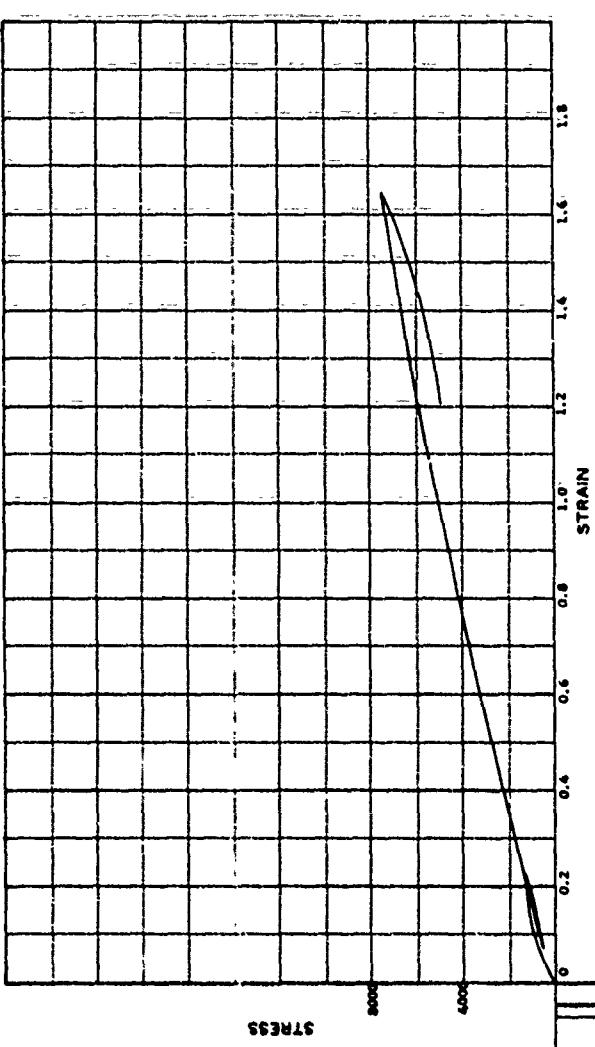
HYDROSTATIC COMPRESSION PHASE



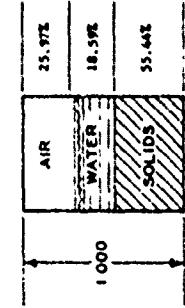
HYDROSTATIC PRESSURE, P, PSI

355

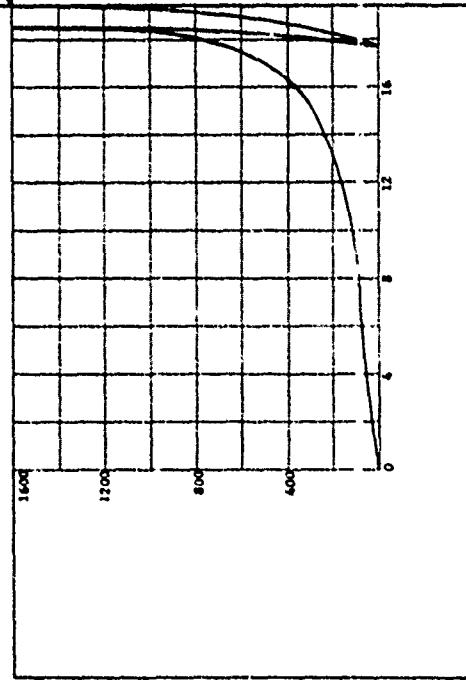
| | |
|---|----------------|
| PROJECT Georgia Institute of Technology 3-602 | |
| Contract No. DMA39-67-C-0051 | |
| AREA | SAMPLE NO. 202 |
| | |
| EL. | DATE |
| L.L. 36 | P.L. 17 |
| | P1 19 |
| DESCRIPTION Weathering Mill Clay | |
| no Lateral Strain Triaxial Test, Initial Confining Pressure 800 psi | |
| Cycle Shear, Cycle Compression | |



| | | | |
|-------------------|------------|--------|-----|
| WATER CONTENT | W | 12.42 | % |
| VOID RATIO | e_0 | 0.80 | |
| SATURATION | S_0 | 41.22 | % |
| DRY DENSITY | γ_d | 93.40 | pcf |
| WET DENSITY | γ_w | 105.00 | pcf |
| SPECIFIC GRAVITY | G_s | 2.70 | |
| SPECIMEN DIAMETER | D_0 | 3.50 | cm |
| SPECIMEN HEIGHT | H_0 | 7.62 | cm |



HYDROSTATIC COMPRESSION PHASE

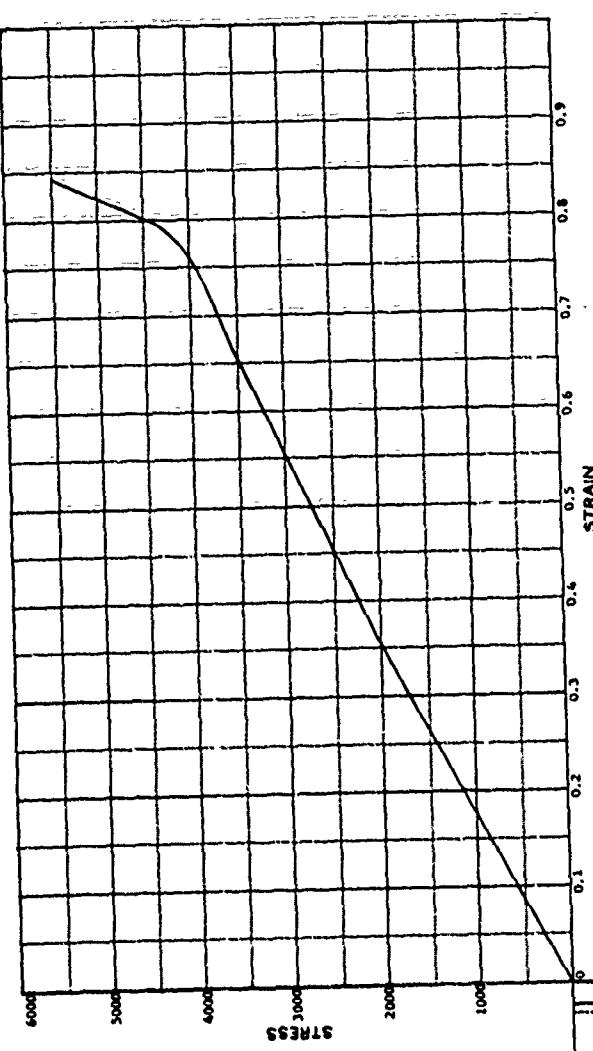


HYDROSTATIC PRESSURE, P, PSI

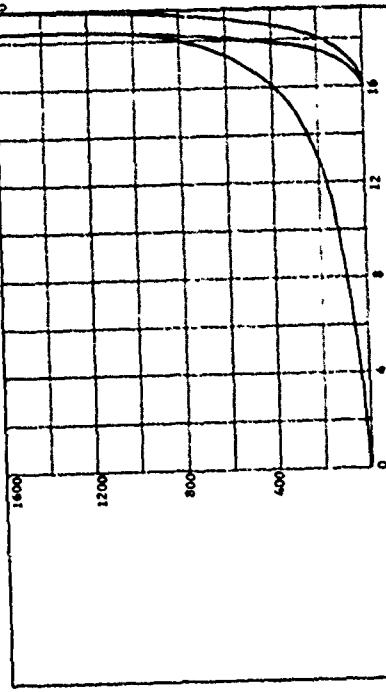
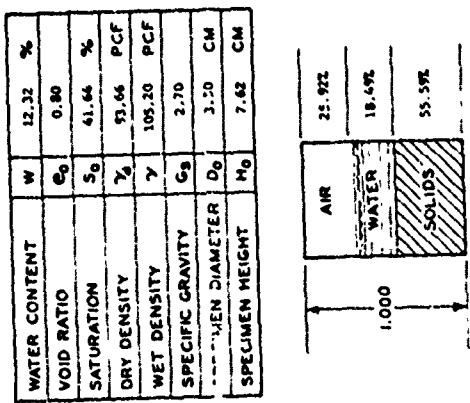
356

| | | | |
|--|----|----------------|----|
| PROJECT Georgia Institute of Technology B-002 | | | |
| Contract No. DACA19-67-C-0031 | | | |
| AREA | | | |
| BOREH NO. | | SAMPLE NO. 27: | |
| DEPTH | | DATE | |
| EL. | LL | 36 | PL |
| 1000 | 17 | P1 | 19 |
| DESCRIPTION: <u>Vertical Shear Test</u> | | | |
| No Lateral Strain Triaxial Test, Initial Confined Pressure, 1600 psi | | | |
| Cycle Shear, Cyclic Compression | | | |

VOLUME STRAIN, $\Delta V/V_0$, PERCENT



HYDROSTATIC COMPRESSION PHASE



$p_A = \text{STATIC PRESSURE, } p, \text{ PSI}$

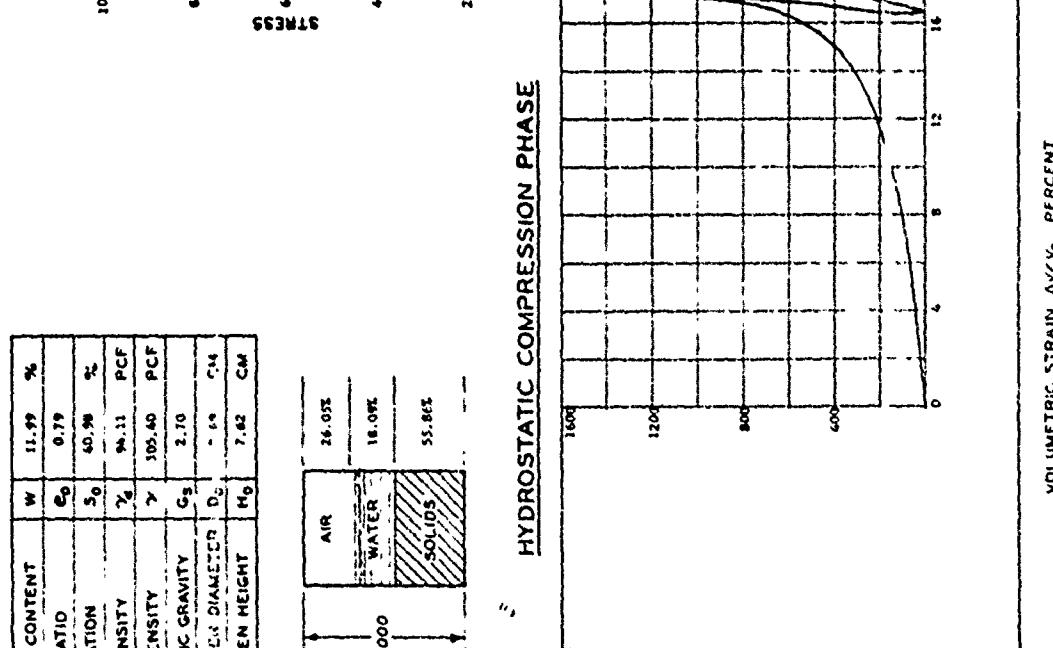
| PROJECT <u>Geotechnical Institute of Technology 3-62</u> | |
|--|-----------------------|
| Contract No. <u>DMA39-67-C-0031</u> | |
| AREA | |
| BORING NO. | SAMPLE NO. <u>323</u> |
| DEPTH EL. | DATE |
| LL | PL 17 PT 19 |

DESCRIPTION Seaching Mill Clay

No lateral strain triaxial Test - Initial Confining Pressure, 1600 psi

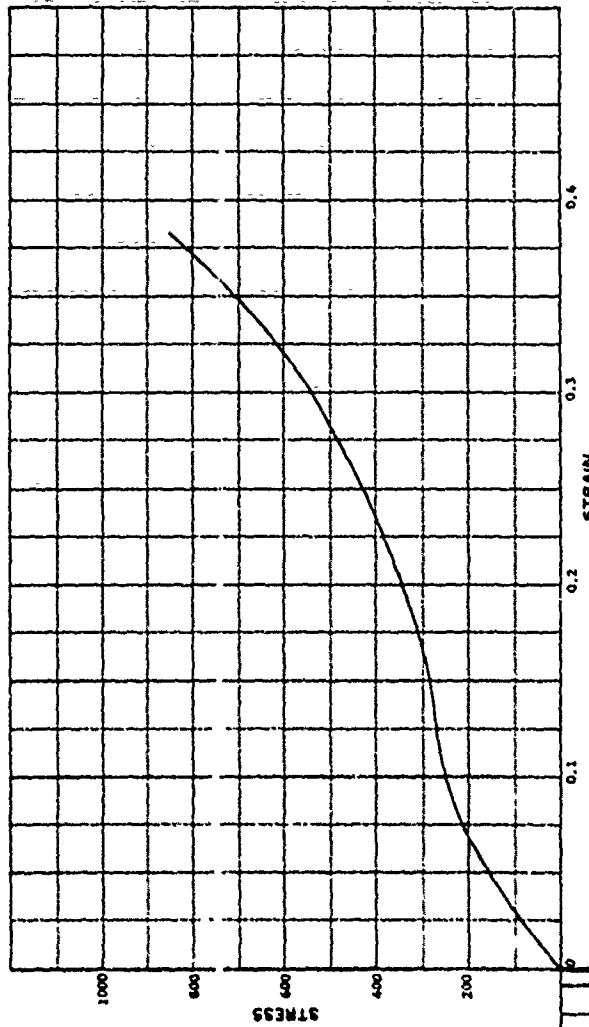
Cycle Compression

| | | | |
|-------------------|----------------|--------|-----|
| WATER CONTENT | W | 11.99 | % |
| VOID RATIO | e ₀ | 0.79 | |
| SATURATION | S ₀ | 40.96 | % |
| DRY DENSITY | D _d | 2.11 | PCF |
| WET DENSITY | D _w | 105.40 | PCF |
| SPECIFIC GRAVITY | G _s | 2.70 | |
| SPECIMEN DIAMETER | D _s | 1.6 | cm |
| SPECIMEN HEIGHT | H _s | 7.62 | cm |



HYDROSTATIC PRESSURE, P, PSI

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HYDROSTATIC COMPRESSION PHASE

| | |
|---|--|
| PROJECT | Geofiles Institute of Technology B-502 |
| Contract No. | DMA/39-67-C-0031 |
| AREA | |
| BORING NO. | |
| DEPTH | |
| EL. | |
| SAMPLE NO. | 324 |
| DATE | |
| DESCRIPTION | |
| Mechanik Mill Class | |
| No Lateral Stress, Triaxial Test, Initial Confined Pressure, 1600 psi | |
| Circle Compression | |

VOLUMETRIC STRAIN, AV %, PERCENT